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Regional Planning Situation Report On Sri Lanka

By

R B Morapaya
EXPERT GROUP MEETING

INTEGRATING INFORMATION SYSTEMS/TECHNOLOGY
IN LOCAL/REGIONAL DEVELOPMENT PLANNING

31 October - 4 November 1988

REGIONAL PLANNING SITUATION REPORT ON SRI LANKA

R. B. Morapaya

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REGIONAL PLANNING SITUATION REPORT ON SRI LANKA
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Integration of local-level plans
Integration of local - level and national plans

NATIONAL LEVEL PLANNING

REGION A
REGION B
REGION C

INTERMEDIATE LEVEL PLANNING

LOCAL LEVEL PLANNING

RURAL PLANNING

REGIONAL PLANNING

LARGE PROJECT PLANNING

MACRO-PLANNING

PROJECT PLANNING
1.1 Introduction

A description of the regional planning process of a country needs to be done in the context of that country's national planning process.

The most noteworthy feature in the context of Sri Lanka's planning practices is that the regional planning activity has not been undertaken in an explicit and deliberate manner, as an essential element of the national planning process, either to aggregate a series of regional plans to a national plan or to disaggregate national planning strategies or programmes into regional units. What one would find at regional level, therefore, are, a series of uncoordinated, disjointed attempts through different line agency policies, programme and projects, at different time intervals, or even simultaneously.

A classification which illustrates the relationships between planning at various levels is presented in Figure 1.1. This is a generalised version which would help to understand the types of regional planning that exists in Sri Lanka.

1.2 The Programme Package

Regional planning activities in Sri Lanka could be illustrated through different programme packages. They show several features of regional planning. These attempts could be identified under the following categories:

a) Attempts to develop rural areas.

b) Attempts to coordinate development administration at different levels by gradually increasing decentralised powers and responsibilities of administration.

c) Attempts at colonization (settlements) and irrigation development, such as multi-purpose river valley development.

In these development programme packages, one could identify some elements of regional planning. They would be prevalent at various degrees at different times:

a) Some sub-national spatial area, (a Village, an Assistant Government Agent's Division, an Electorate, a District, or a Province) as the 'planning' area.

b) Some decision-making authority, coordinating authority, or even fund-raising/rates collection prevalent at sub-national levels.
c) A participatory organization of the people, such as a voluntary society, or an elected body (e.g. Village Council, Town Council).

d) A line agency/department officials to provide central government technical services, finance, and supervision.

e) The legal backing of the central government through Acts of Parliament or delegated statutory power.

f) Mixture of project approaches and process planning.

When they are studied in relation to Figure I, it is noted that many of them fall under the category of national level sectoral planning which percolates downwards through the intermediate levels to the local levels where some kind of rural planning, urban planning or project planning occurs. The line of command and the financial resources are arranged in a vertical way upwards from the village level. So are the field officers through divisional and district level organizations to the national level agencies. The national level agencies set the objectives, targets and also monitor performance. At various stages, a kind of coordinating responsibility was accommodated through the Assistant Government Agent, the Government Agent, the Members of Parliament, and the District Ministry.

Depending on the capacities and capabilities of the particular line department in planning in each sectoral programme at the sub-national level (in this case the district level) some form of project planning and programme coordination has emerged to meet the needs of the times. The technical contents, and physical planning contents have been somewhat satisfactory in the case of agencies, such as the roads and highways, irrigation and agriculture.

Of these programmes, the more closer relations to the regional planning experiences, would be the Decentralized Budget Programme (DCB), the District Development Councils Programme (DDC), and the Integrated Rural Development Programme (IRDP). They help to bring out an assessment of the present regional planning process and practices. The DCB and the IRDP are still being continued. Being a local government instrument, the DDC has to merge with the agencies that would replace it, i.e. the Provincial Councils and the Pradeshiya Sabhas.

Another important factor, common to all of them, is the using of the intermediary administrative unit, i.e. the District, as the operational spatial unit. There are twenty-five such administrative units with well established administrative and coordinating structures that were continued to be improved and strengthened upon from the colonial past.

The detailed description of the three programmes need to be preceded by a brief discussion of the prevailing planning process in the country.

The district was the most recognized administrative/planning region in Sri Lanka. There are 25 of them. From recent past, the Province, of which there are nine, is emerging as the more important sub-national unit with an elected government. (Map I – Districts and Provinces of Sri Lanka).
DISTRICTS UNDER THE INTEGRATED RURAL DEVELOPMENT PROGRAM

MAP I - Districts and Provinces of Sri Lanka
1.3 The Planning Process

Before one attempts to understand how some kind of regional planning practices emerged at district levels through different national programmes, it would be useful to briefly outline the thinking and institutional changes taking place in the main stream of the planning process in the country, i.e. the national planning apparatus. In order to be brief, only the principle administrative units involved in the process in the present situation need be considered.

Several attempts to implement comprehensive Development Plans have failed. (The Ten-Year Plan and the Five-Year Plan). This has given way for a Public Sector Investment Programming exercise on a 'six-year rolling plan' basis, updating the programme every current year and adding a new year. It is restricted to the capital investment projects. Several lead projects are identified. The National Planning Division of the Ministry of Finance and Planning takes the leading role of project appraisal. A two-stage approval process is followed. Approved in principle is given on a preliminary description before submitting the more detailed feasibility studies for final approval. A multi-sectoral and multi-disciplinary team approach is adopted with the Development Secretaries Committee as the central decision-maker before submission to the Cabinet for approval. This process is closely linked to the budgeting exercise of the Budget Division of the Ministry of Finance and Planning. The Plan Implementation Ministry's Progress Control Division, is in charge of monitoring. Each line Ministry does its own project planning with collaboration of the National Planning Division where necessary, with its own Planning Units. 2/

Such a streamlined process does not exist at the sub-national level for planning purposes. However, there are different programmes which incorporate some elements of regional planning. It is suggested to study the DCB, DDC and the IRD Programme in this report.

1.4 The Decentralized Budget

With the setting up of the institution of the District Political Authority in 1973, the then Government felt it desirable to provide an opportunity for the district level to have decision-making responsibility on investments in development projects in their respective areas. This, it was felt, would create a feeling of popular participation and bring local experience, know-how and information into the process of project planning.

The instrument that was evolved for this purpose was the introduction, from 1974, of a Decentralized Budget (also later referred to as the District Budget) through which each administrative district was provided with an annual allocation of funds; the expenditure of which was to be decided at the district level, without reference to the central government. This was not a decentralization of the National Budget, but the earmarking of a specific quantum of money annually for discretionary use at the district level. The amount for each district was based on the number of Parliamentary Electorates in each such district, with fixed amount being allocated for each Electorate (Rupees 2 Million per Electorate up to 1978 and Rs. 2.5 Million after 1979), no heed being paid to the size, population, natural resource base, stage of development, etc. of either Electorates or administrative districts.
It has been observed that "by insisting when laying down the criteria for accepting proposals for funding, that the cost estimate of each proposal should not exceed Rs.500,000 and that the work should be such that it could be completed in under six months, it propelled decision-making towards a multiplicity of small projects which would normally have electoral significance rather than multi-electoral large scale projects with development potential for the district as a whole, or which could provide major under-pinning for an integrated district development plan. 3/"

A study of its operation makes it quite clear that it is the Member of Parliament who has, throughout the history of the scheme, been the main figure in identifying projects on which electorate's apportionment of funds is spent. The Member of Parliament identifies the projects. The concerned technical departments assess the cost and the Government Agent's office (the Planning Branch) approaches the Member of Parliament to make the final selection of the projects based on such costing. The Member of Parliament obviously does not make the choice of his or her own self. There is consultation with political party branches and the village level institutions, which in any event, are also nominees of the Member of Parliament.

Even though final choices could be influenced by political considerations, it is not unreasonable to expect that regional planning considerations would have determined the initial basket of projects from which the final choices are made.

Techno-planning inputs into the process of formulation of the District Budget have not been possible due to several reasons, which include:

a) The absence of trained planning cadres at the district level.

b) The lack of information and data on resource availability.

c) The absence of coherent development goals set out for the district.

d) The perception of the District Budget by district level elites as a funnel for disbursement of funds for reacting to articulated need rather than an instrument for planned development of the district.

e) The absence of linkages between the District Budget and the rest of the development activity taking place in the district.

If the District Budget concept had been operationalized within the framework of overall planning for the district, it could have played a major role, through its flexibility in programming and its united character, in enhancing the outputs from district's development projects, in bridging gaps in the development process in the district and in enhancing the planning and managerial capability within the district development system.
The creation of the institution of District Ministers in 1978 served to formalise and strengthen the political direction of the development management system at the district level and provided a stronger enabling link between the district and the centre. But these changes have not served to integrate the District Budget to the district planning process. This programme continues without any substantial change and being accepted as the prerogative of the Member of Parliament. The outlook even under the Provincial Councils for DCB remains unchanged.

1.5 The District Development Councils (DDC)

The Development Councils Act No. 35 of 1980 brought about significant changes in the local government structure in Sri Lanka. The DDC comprises the Members of Parliament from the district and a specified number of members (which shall be less than the number of Members of Parliament) elected by the people of the district for a term of four years. Such Council would be a body corporate with perpetual succession with power to acquire and dispose of property.

The functions of a Development Council shall include:

- a) the approval of the Annual Development Plan submitted to it by the Executive Committee;
- b) the implementation of such plan through the Executive Committee;
- c) making by-laws;
- d) the investment of the revenue of the Council for development purposes;
- e) the formulation of development schemes in respect of subjects not specifically assigned to it under the Act for submission to the appropriate Minister; and
- f) exercising, performing and discharging such powers, duties and functions as had belonged to the erstwhile Village Councils and Town Councils.

The procedures concerning the formulation of the Annual Development Plan are interesting. Prepared by the Executive Committee, it is to be forwarded by the Committee to the Council through the Minister of Local Government. When approved by the Council, the Plan is again to be submitted to the Minister of Local Government for his approval. Thus, the procedure provides for active intervention of the central government's Ministry of Local Government at two points.

The Act also established other local level bodies, named Gramodaya Mandalayas at village level and Pradseshiya Mandalayas at Assistant Government Agent's level. Even in its conception, the programme had in-built contradictions. The first was the uneasy accommodation of centrist direction in the form of a District Minister, accountable to and a creature of the central government. The second was a significant role given to Members of the central legislature from the
district. A third was the emphasis accorded to central government grants and subventions in sources of revenue of the Councils and the continuance, through them, of the tradition of dependence of the periphery on the centre. A fourth was the perpetuation of the centrally controlled Local Government Service as the basis of staffing of the District Development Councils. What emerged was a geographical de-concentration of central authority than a decentralization to local levels for planning and managing rural development projects.

A two-way pull has characterized the perceptions of the ideal development planning and management system on the part of the politico-administrative elite of Sri Lanka in the post-Independence decades. The attraction, in the form of techno-efficiency of a centralized system in the context of a communicationally well-knit small country pulled these elites in one direction - and this bias was reinforced by arguments of the techno-economic rationality that would pervade the development process. Pulling them, at times, violently, in the other direction were the realization that, in the context of a multi-ethnic society wherein there is geographic concentration of the different ethnic groups, the decentralization of the functions of planning and management of development activities was a pre-requisite to ensuring the active participation of all the people in the development process. The two-way pull has continued to affect decision-making concerning the implementation of decentralization measures over the past three and a half decades. The District Development Councils Programme was no exception to that.

Before a discussion of the re-arrangement of governmental structures under the Provincial Councils, it is now proposed to examine briefly the experiences of an on-going exercise at district level, which existed simultaneously with the District Development Councils and the District Ministry System, i.e. the District Integrated Rural Development Programme (IRD).

1.6 The District Integrated Rural Development Programme

It is the opinion of this writer that the discussion of the regional planning situation in Sri Lanka could be fruitfully done through detailed inquiry into the District Integrated Rural Development Programme. The most significant factor is that the programme was originally conceived in 1976 through the Development Planning Unit of the then Ministry of Planning and Economic Affairs making use of the technical consultancies provided under the United Nations Development Programme (UNDP). It is also noteworthy that, with the change of government, and re-allocation of Ministries, the programme implementation was handed over to the Regional Development Division of the Ministry of Plan Implementation (RDD of M/PI). By that time, RDD of M/PI had a District Planning Unit (DPU) in each of the districts, directly under the Government Agent. In many of them the Decentralized Budget work was also undertaken by the DPU with direct contact with the District Minister and the Members of Parliament. The DPU had established closer links with the district line agencies, and closer inter-agency coordination and some form of regular monitoring of work undertaken by the line agencies through the DCB. (Map 2. Location of DPU and IRD Project Offices).
The RDD of M/PI made use of the DPU staff to set-up IRD Project Management teams with a Project Director, thus making use of the already available talents in project planning, implementation coordination and progress control. The organizational structure of the IRDP was built upon the M/PI - RDD links with the line agencies at national level, its relationships to the District Ministers, the Government Agents and the District Planning Units. In-built into the system was the fact that the President continued to be the Minister of Plan Implementation. (Organization Chart IRDP). Figure II.

Different people conceptualize IRDPs in different ways. To some, it is a philosophy or an ideology. For some others, it is a strategy to develop a country's rural areas. In Sri Lanka, due to the special historical circumstances and the national socio-political context, it appears to be a public sector investment strategy, another step towards further decentralization of planning and decision-making, giving an opportunity for policy makers at the centre to spatially balance capital investment. This is done in consideration with lead national projects, such as the Mahawel Development Programme, Urban Development Programme, Free Trade Zone, and the National Housing Development Programme. After limited successes to implement nationally conceived sectoral plans at the grass-roots level, the IRDP is viewed as a pragmatic effort to implement projects in the rural areas, subject to the basic requirement that is planning what could be implemented. Sri Lanka's IRDP attempts to give an opportunity to those at the district level, divisional level and the village level to assess problems, identify solutions, implement projects, establish linkages, coordinate and monitor its implementation. Therefore, a follow-through of various stages, its information requirements, availability and usage would give a balanced view of regional planning situation of the country and information system and technology prevailing in regional planning in Sri Lanka.

Rural Development in Sri Lanka has resulted from sectoral activities of numerous government agencies in almost all conceivable spheres of activity in irrigation, land development, agricultural research, extension, credit, crop development, subsidies, infrastructure development, such as roads, electricity, buildings and social welfare, such as health and education. These were organized by sectoral line agencies from national level. Most of these agencies are represented at the district level by a senior officer, who is instructed from the centre. The District IRD Projects were conceptualized to provide a unique opportunity for activities to be planned over many sectors for the district, implemented in addition to the on-going activities. Plan formulation is a team effort, taking a stock of the present situation, a problem analysis, objectives setting, identification of programmes, projects and activities, appraisal, financing, implementation and monitoring followed with evaluations. There is strong horizontal linkages established. There is no restriction to the number of sectors that could be included. In districts which have clear geographical diversity sectoral priorities also imply intra-district area priorities. 4/

The IRD Programme is implemented with foreign collaboration. The Programme and funding agencies are given in Table II. The World Bank funded projects follow a 'Blue Print Model' where the projects are prepared in detail for a five-year period, documented with a legal
ORGANIZATIONAL - CHART
REGIONAL DEVELOPMENT DIVISION

Figure II - The Organizational Chart of RDD-IRD

* In Hambantota, Puttalam, Moneragala, the Planning units are functioning under the Project Director.
agreement and little flexibility. The bi-lateral donor funded projects follow a rolling plan model with annual reviews and project formulation as a continuous process.

The IRD Programme possesses the following characteristics which make it reach to the closest attempt for region planning in Sri Lanka:

a) Central Government Policy approval and financial commitments.

b) Government organizational mechanism with a Project Office tied to the district organization and linked to the national centre and the local levels.

c) A base report of the existing situation and problem analysis.


e) A perspective planning document with medium-term investment framework for bi-lateral projects.

f) An established planning process with project formulation, appraisal and approval stages with regard to bi-lateral projects.

g) On-going evaluation and a post-project evaluation process identified and agreed upon at the planning stages.

h) On-going monitoring and progress reporting process.

i) Routinely up-dated annual programme of work, revised in keeping with the cumulative performance, and the balance targets on agreed projects.

Regarding the established process as summarized above, an ILO-ARTEP Evaluation Team comments as follows: 5/

"Viewed as an exercise in planning, IRDP involves, essentially, the selection of a number of schemes in the different sectors and geographical parts of the district."

which implies that it is a multi-sectoral regional planning exercise.

The preliminary screening of proposals takes place in the district offices of the individual line departments which look into the technical and cost parameters of the proposals. This is followed by meetings at the district level to reach an acceptable measure of consensus among the bureaucrats, technical officers, political representatives and leaders of voluntary organizations. It is important to keep in mind this context of consensus process influencing the selection of IRDP schemes. Planning experts, by themselves, may not be able to do much to improve IRDP planning unless the consensus process brings within its fold all the relevant groups and the participants have a maximum development orientation as regards the objectives and priorities appropriate to the district.
The product of consensus reached at the district level gets further processed in the RDD - M/PI to become the document for negotiation with the donor. The ILO/ARTEP evaluation team observes that in their expression:

"in terms of planning inputs, the RDD adds valuable ingredients but more in the form of experience and insights of its senior officers rather than as formal exercises using sophisticated tools. Reviews by the funding agencies leading to the choice of schemes finally taken up for implementation bring in further components."

The team identified certain areas for improvement of planning process. In view of the fact that they are directly linked to the Information Systems and Information Technology, these aspects are repeated here. These common areas are:

- adding details and substantiveness to the initial perspective on the long-term priorities and strategy for the district;
- deeper analysis to help in tailoring the schemes to the specifics of the problem situations selected for investment;
- planning exercises at the sub-district levels including some very worthwhile experiments in participatory planning at the group of villages level;
- evaluations to move further from routine monitoring towards more informative assessments of benefits;
- systematized procedures to organize monitoring of output and direct impact of schemes as a routinized on-going process;
- improved capabilities to undertake target-group planning.

The conclusion of the evaluation of this particular aspect of IRDP was given as:

"An obvious point revealed by this review is that there is scope to improve IRDP planning by using the experience gained so far to evolve a uniform and balanced planning system and to select certain components for priority attention in the next phase. It should be made clear that it is not our intention to advocate any particular planning ideology or methodology. In fact, Sri Lanka is not a centralized planned economy and what the Government in Sri Lanka appears to desire is that at the decentralized levels of administration is a pragmatic system capable of bringing together the different functional groups at these levels like administrators, technical officers, political representatives, etc. for an orderly implementation of development activities guided by a broad plan of action..."
reflecting the consensus among them on priorities and on the sequencing of activities over time and in different areas in the district. This is the direction in which IRDP planning is evolving and our attempt is only to visualize the next phase of improvement and consolidation to quicken the process."

These visualizations made in October 1984 has become much closer to reality by August 1988, when the Provincial Councils Bill has been passed, seven Provincial Governments have been elected, the provincial administration is just being established, and the central Ministries have initiated a dialogue with the provinces to identify steps for devolution. The discussion of the regional planning situation in Sri Lanka should, therefore, attempt to discuss the current situation of formulating mechanisms of devolution, tie-up the observed trends from the past, and identify some emerging directions for regional planning in Sri Lanka. From the body of knowledge on regional planning theory, one may have to pick-up an ideal or a model which is suitable to the overall context of Sri Lanka today, so that in the latter part of the discussion, which concerns the information system and information technology the discussions would be kept closer to the reality.
Regional Planning - an adaptable concept for Sri Lanka

It was described in a previous Section that the planning process in Sri Lanka, in keeping with the open economic policies of the new government in 1977, was reduced to a public sector investment programming exercise of a rolling plan nature with particular emphasis on lead projects. Underlying this is the emphasis on producing action outcomes in a planning framework, reducing the time, information, and manpower requirements associated with conventional comprehensive planning attempts. However, it should not imply a reduction in quality. On the contrary it need more vigour, purpose, direction and care to the planning process very specially with setting up of the Provincial Council system.

The guiding principle is that regional planning is a continuous process of formulating, presenting, and advocating concise and target-specific plans and programmes for developing and servicing a region, mobilizing resources, building administrative capacity, and designing instrumentalities for plan implementation. Implicit in the term is monitoring, evaluating and forecasting societal change and the impact of planned interventions on it. Regional planning purpose is to provide informed advice and recommendations to decision-makers on the decisions affecting the future.

In this planning process, a plan is a policy statement and action programme that, at a given time, presents how the best likely future scenario can be obtained within the resources known, available and/or able to be mobilized at that time. It describes how, when and in what order the scenario’s components can be accomplished.

From this conception of planning, it follows that a planning region must be a sub-national geographical area with legislated authority to plan, and within the administrative capacity and fiscal resources to implement plans within its jurisdictional boundaries.

The regional level is the most critical and complex in a national planning system. This level forms the nexus at which broad national strategy is translated into tangible programmes and projects, where the abstract becomes concrete. A crucial task at the regional level is the preparation of the regional sketch plan.

The sketch plan is unique in that it tries to overcome a stratification of plans, - e.g. vertical by purpose, outline, project, strategic or operational plans - and a temporal sequencing of plans - e.g. preliminary, long-range, or final. On one hand, the sketch plan is a framework that, in broad quantitative and qualitative terms, presents an outline for the spatial and temporal organization of settlements, economic activity, social services, and support infrastructure within the region. It is a statement of development strategy and implementation means. On the other hand, the sketch plan identifies key sectors and projects and suggests specific ways to fill critical lacunae between various governmental levels and sectors and between social and economic plans and spatial plans.

The sketch plan approach focuses attention on critical issues, strategies, gaps between on-going activities and latent opportunities. The approach avoids entanglement in the multiplicity of issues considered
in a traditional comprehensive planning effort, which often has rendered planning ineffective, particularly in developing countries. The main characteristics of a sketch plan are:

- Flexible, continuous, self-adjusting.
- Iterative, selective.
- Disaggregative.
- Open-ended and tolerant.
- Timeless and junctural.
- Feasible and probable.
- Implementable.

Considering the review undertaken through DCB, DDC and IRDP, on the varied types of regional planning activities that are practised at present in Sri Lanka, the above conceptualization enables one to appreciate the existing patterns and desired future directions. The current changes and future directions of regional planning by way of the introduction of Provincial Councils System is discussed in the next Section so that the Information System (IS) and Information Technology (IT) at various stages of planning could be dealt thereafter.
The Provincial Councils -

The current context in regional Planning in Sri Lanka

The most recent amendment to the Constitution of Sri Lanka was the Thirteenth Amendment. It introduced a devolution package of the hitherto centralized government functions. It created a sub-national unit the Provincial Councils. The unit called the Province was not something new to Sri Lanka. It existed from the British colonial times. There were nine such Provinces. It was then a unit of administration. However, with the gradual expansion of government involvements in development work, the district, which was a smaller unit (with twenty-five such units in the Island at present) gradually emerged as the most effective administrative unit. The reviews of DCB, DDC, and IRDP in the earlier Sections explained its structure and importance.

With increasing demands for greater autonomy at regional levels, which is tied-up with ethnic violence, a provincial councils system has now being introduced.

Following is an attempt to summarize the paragraphs of the Provincial Councils Bill which have relevance to regional planning process:

- A Provincial Council is established for every Province (154A).
- A Governor is appointed by the President to each Province.
- Executive power shall be exercised by the Governor (154C).
- There shall be a Board of Ministers with a Chief Minister and not more than four other Ministers (154F).
- A Member of Parliament cannot be a Member of a Provincial Council nor as Provincial Council Minister.
- Three types of lists depict the responsibility and authority of the Provincial Council and the National Ministries. They are:
  a) List I of Ninth Schedule, Provincial Councils List.
  b) List II of Ninth Schedule, the Reserved List.
  c) List III of Ninth Schedule, the Concurrent List.

In order to get a detailed understanding on the devolution package, as it stands legally, it is necessary to list those items in the three lists which has some direct or indirect relevance to any type of regional planning system that may emerge.

List I - The Provincial Councils List

- Planning/implementation of Provincial economic plans.
- Education and Education Services.
- Local Government.
- Roads.
- Agriculture and Agrarian Services.
- Rural Development.
- Health.
- Land (limited responsibility).
- Irrigation.
- Animal Husbandry.
The Provincial Councils will operate a Provincial Fund into which should be paid:

a) The proceeds of all taxes imposed by the Provincial Council.
b) The proceeds of all grants made to the Provincial Council.
c) The proceeds of all loans advanced to the Provincial Councils from the Consolidated Fund of Sri Lanka.
d) All other receipts of the Provincial Council.

The most important item in the Reserved List is the Finance in relation to national revenue, monetary policy, and external resources which are with the national government.

For regional planning process that is to emerge within the Provincial Council System, the most noteworthy aspects are in the Concurrent List.

Planning

- Formulation and appraisal of plan implementation strategies at the Provincial level.
- Progress control.
- Monitoring progress of public and private sector investments.
- Evaluation of performance.
- Presentation of relevant data in the achievement of plan targets.
- Dissemination of information on achievement of plan targets.
- Publicity of implementation programmes.
- Manpower planning and employment data bank.
- Nutritional planning and programmes.
- Higher education.
- Soil conservation, plant pests.
- Population control and family planning.
- Irrigation, water storage and management, drainage and embankments, flood protection, planning of water resources.
  Service provided for inter-Provincial land and irrigation scheme.
- Social forestry.
- Fisheries.
- Animal husbandry - National concern.
- Employment.
- Tourism.
- Electrification.
- Protection of environment.

Among the institutions that are relevant to the regional planning activities, one could list the following:

a) Financial Commission - at National level.
b) Planning Commission - at National level.
c) Provincial Councils operating a Provincial Fund.
d) Continued existence of local government organizations, such as the Municipal, Urban and Town Councils, and Pradeshiya Sabhas.
e) Establishment of a Provincial Public Service Commission.

Relevant to the devolution of powers as enumerated above, the main study which has relevance to regional planning scenarios, is Report No.6 of the Administrative Reforms Committee.
The tasks identified in the Report for the three levels are as follows:

a) The Centre, i.e. national level would primarily be responsible for subjects and decisions which affect the nation as a whole. The greater part of its concern would necessarily be future-oriented with their emphasis more on the long-term rather than on the short-term. The centre would be involved in the continuing tasks of building national consensus and of holding an equitable balance among sub-national entities whether they be spatial, ethnic, religious, social, demographic, or economic.

b) The Provincial level would be limited to matters that relate to the well-being of the people of the sub-national area which would comprise the area of authority of each Province. It will be directly engaged in the formulation of operational policies, strategies and plans in the medium and short-term, in the management of their implementation and in the evaluation of such implementation. Its focus of attention being spatially limited, would, necessarily be more specific and detailed.

c) At the level of the Pradeshiya Sabha, formulating of specific projects, their implementation, the delivery of developmental and community services, monitoring with greater specificity, and maximum interface with the public is expected.

The Chairman, Administrative Reforms Committee, further elaborates that for the three different levels, for the three different tasks, there is a need for three different breeds of public servants. At the Centre, the task is one of policy management which calls for multi-disciplinary teams. At the Province, the tasks focus on coordinative guidance specially of those who are at the periphery. At the local or Pradeshiya Sabha, the tasks are primarily concerned with implementation management related to delivery of community services, to the provision of technical advice and support and to the accomplishment of infrastructural projects.

The Administrative Reforms Committee (ARC) has further recommended that 'consultation between equals requires the availability of appropriate institutional mechanisms'. The Committee recommends the establishment of two such mechanisms which would serve this purpose. The first, which would be solely concerned with the financial relationship, would be a Finance Commission which would be a permanent institution in the politico-administrative system. The second, which would be concerned both with the financial relationship as well as with national planning would be a National Planning Council.

The Finance Commission, which has already being appointed by July 1988, consists of the Secretary to the Ministry of Finance and Planning, the Governor of the Central Bank, and three other eminent persons.

The Committee has recommended the establishment of the National Planning Council which would be chaired by the President and would comprise designated sectoral and functional Ministers of the Centre, the Chief Ministers of the Province, three persons of eminence in the field of development planning as well as the Chairman of the Finance Commission.
Since all the Provincial Ministers have not yet been elected by the end of August 1988, this body has not yet been created. Consequently, a proposed rationalisation of the central ministries and the re-arrangement of the functions of planning agencies is still awaited.

The Committee has also recommended that the Councils mandate should include:

- The approval of the country’s medium-term development plans and their inter-sectoral allocation of resources.
- The analysis of development policy options and formulation of national development policies and strategies.
- The review and modification of the medium-term plans.
- The approval of inter-Provincial development projects.
- The monitoring and evaluation of plan implementation.

The National Planning Council would have its own secretariat and would be serviced by the Planning Division of the Ministry of Finance and Planning as well as by the Ministry of Plan Monitoring and Evaluation.

The participatory needs at the Provincial level would require the constitution of Provincial Planning Councils to be chaired by the Chief Minister of each Province and comprising the members of the respective Boards of Ministers as well as three other persons of eminence in the field of development planning, two of whom would be chosen by the Chairman of the Pradeshiya Sabhas in each Province and the other by the Chief Minister.

These recommendations of the ARC at Provincial Councils’ level has also not yet been implemented. The Committee draws attention to the fact that there is a need for high quality specialist staff, who are trained in planning, in each of the different sectoral ministries at the Centre. The Committee has already recommended that in future, Ministries should be regarded as planning and policy making bodies, rather than operational entities.

The Committee is very much concerned with the absence of staff adequately trained in planning at the Provincial level. It is aware that currently there are some “planning staff” at the administrative district level.

The need for them in their present form would disappear within the new devolution structure. The Committee, however, sees the need for small groups of high quality and highly skilled planning staff to service the Provincial Councils. Their training should emphasize inter-sectoral spatial planning rather than the technicalities of project appraisal as well as the developing of forecasting and projecting capability and impact evaluation competence in addition to techniques of implementation planning.

Another concern of the Committee is in regard to the requirements of the information base for planning at each of these levels of the devolution structure. The Committee finds not only an inadequacy of information and data to support the planning process of today, but also of the absence of spatially disaggregated data which would lend meaning to any kind of —
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sub-national planning. The Committee considers this to be a serious
defect which would place effectiveness of the devolution structure in
jeopardy.

The Committee is aware that for the past three years or so a UN-funded
pilot project, which has been technically supported by ESCAP and UNESCO,
has been attempting to develop a data base for district level planning in
the Kalutara District. It should now be possible for the Department of
Census and Statistics to review this attempt and to take the work forward
to develop a system of data and information collection, collation and
dissemination which would provide effective data bases for planning at
the Provincial and Pradeshiya Sabha levels.
An Assessment of the present Regional Planning Process

Being a comparatively small country, fairly well served with a communication network, and with an electoral process for over fifty years, one would not see extreme regional contrasts in Sri Lanka. A strongly centralized government was continued from colonial times. Local government institutions, such as municipal, urban, town and village councils were in operation for a long period of time with minor changes in recent times. Administrative decentralization in different forms were attempted from time to time by successive governments which were seemingly to serve the interest to party politics. Line agency programmes, such as irrigation and land settlement had planning contents of sub-national nature. One, however, cannot identify any explicit comprehensive planning exercises even during the days when national planning was given high priority at the centre. With de-emphasis on national planning since 1977, and giving way for an open economic policy, the public sector investment planning of a rolling plan nature narrowed the gap between theory and practice of planning. While sub-national level planning was attempted through DDC and DCB, the most noteworthy features of sub-national planning with elements of regional planning is found in the IRD programme. A combination of these elements could perhaps lay the groundwork and institutional arrangements that are required for planning under the newly-created Provincial Councils. Once the nine Provincial Councils are set-up and the Finance and Planning Commissions are appointed there is no alternative either for the Centre or for the nine Provinces, but to introduce a form of regional planning and coordination of such plans from the Centre if the final goals of balanced development is to be achieved. This is a big challenge. Information systems and information technology has a very significant role to play in the current situation in Sri Lanka.
In the context of urban and regional planning, Christian P. Averos identifies four types of information systems:

"a) Quantitative information systems, which include estimated, measured, or scaled data."
b) Synthetic information systems, which include data of a certain degree of aggregation over time, geographic areas and population groups.

c) Systematic information systems, which organize information according to a conceptual, descriptive and informative model.

d) Functional information systems, which serve a specified function in the formulation, implementation and evaluation of policies and plans."

Averos further identifies the functions of such information systems. These include:

"a) Descriptive function (i.e. to monitor a state, or to describe a situation through urban profiles, public opinion surveys, and national and international programmes integrating urban socio-demographic, economic and environmental strategies).

b) Cognitive function (i.e. to understand urban and regional phenomena through the use of statistical methods and models which analyze inter-dependent variables).

c) Normative function (i.e. to act at project, programme or planning levels, viz: (i) helping to reduce the costs of implementing routine managerial tasks, such as the management of public administration personnel, the local tax system, the local government budgets, the maintenance of population records, voters' lists, and registers of births, marriages and deaths, payment of social benefits, and billing for public utilities; (ii) monitoring the impact of decisions already taken, so that corrective decisions can be taken in response to the deviation between the real and the target situation, e.g. urban air pollution alert systems, regional flood alert systems, and fund allocation mechanisms among cities or regions; or (iii) evaluating the impacts of projects, programmes, or plans with respect to assigned objectives, e.g. cost-benefit analysis and multiple criteria analysis)."

In view of the fact that planning practices in the IRDP of Sri Lanka is the most closest to a regional planning process, an assessment of the data and information requirements could be based on its experiences. In the context of IRDP, it is the decision-makers and planners who are the users of the data and information which is obtained in an ad-hoc manner from the existing systems which could fall into the above classifications.

The decision-making in the field of development is often a mixture of political steps and technical decisions. It is frequently prompted by external events (crop diseases, flood disasters, etc.) which may set off pressure on the decision-makers by mass media or public opinion, and, of course, at the political level. The IRDP planning and policy decision-making, in view of the small nature of investments, and its wider spread in the villages is done at the politico-socio-economic levels. Technical levels handle specific project planning at locations.
The sequence of events in an IRD Project district goes through a preliminary situation report analyzing the problems, potentials, constraints and solutions, which forms the basis for negotiation with a donor. At national planning levels priority among the project districts on continuation of projects or inclusion of new districts is made based on some national spatial policy. A decision is made at the External Resources Division level in selection of priorities among the competing demands for limited external funding available. So at national level aggregative but comparable data of various forms are needed to make a case. The situation report needs to contain enough information to obtain priority over other districts. At the time of negotiation with the donor, the physical, human, economic information with details of infrastructural and administrative capacities, the existing development programmes, etc. are needed. Depending on the conception of the donor agency and the composition of its appraisal and review missions details on target groups, basic needs, environmental considerations, etc. may unfold.

Once agreement in principle is reached, projects are identified and formulated either for a Five Year Blue Print Model or a Rolling Plan Model. Spatial and sectoral analysis along with application of participatory process is a long drawn arduous task where officials are called upon to balance between the extremes of research needs of expatriate staff and irrational political demands. Lack of data and information make the task vigorous and unrewarding.

A figure outlining the work steps and linkages between regional planning, decision-making and data collection is given to use as a framework for the discussion on IS and IT for regional planning in Sri Lanka.

5.2 The prevailing situation on data and information availability and needs

It is at times pointed out in various investigations that there is no dearth of data covering the economic activities in the district - as is indeed the case all over the Republic, economic and social indicators are very well developed even at the district level, to a degree which is far from common in Asia. In some fields, there is so much information available, that the planner must exercise self-restraint so as not to burden his/her readers with more information than required.

Quite a lot of the data collected through government machinery has been conceived as contributions to national accounts, or as parts of the reports of central government departments rather than as a basis for sub-national level planning. The information which is not pertinent to the work of a district planner on the activities of government departments or on economic transactions may not be available at district level. (A recent attempt to formulate a regional accounting table for the Southern Province by the Marga Institute as a part of the attempt to formulate a Southern Province Development Strategy for the Finance and Planning Ministry showed unsurmountable gaps). It would be useful to the regional planner to know something about the interaction of producers, consumers and government bodies in different
FIGURE III - PHASES IN A PROJECT FOR REGIONAL DEVELOPMENT, RELATION BETWEEN LEVELS OF DECISION-MAKING, PLANNING AND DATA COLLECTION.

Political/technical level

- Decision Process
  1. Decision to consider a region's potential
  2. Decision to draw up a plan for the region
  3. Formulation of development objectives
  4. Selection of strategy

Planning level

- Planning Process
  3. Regional analysis
  4. Evaluation
  5. Analysis of existing investment projects
  6. Preparation of alternative strategies
  7. Formulation of the plan
  8. Project specifications

Technical/survey level

- Data Collection
  1. Collection and evaluation of (existing) basic data
  2. Identification of development potential
  3. Reconnaissance surveys
  4. Feasibility studies
  5. Coordination of projects within the plan
  6. Detailed surveys

Decision to consider a region's potential
Decision to draw up a plan for the region
Formulation of development objectives
Selection of strategy
Regional analysis
Evaluation
Analysis of existing investment projects
Preparation of alternative strategies
Formulation of the plan
Project specifications
Coordination of projects within the plan
Reconnaissance surveys
Feasibility studies
Coordination of projects within the plan
Design studies
Detailed surveys

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industries within the district. Such transactions must include what proportion of production is consumed within producer's household and what proportion is sold on the market. There are no district level estimates of income distribution in relation to labour force participation and employment. Please see Table I.

From Table I and the needs that were specified earlier in this Section, it is seen that what is mostly available in Sri Lanka is information and data supporting regulatory and specific functions in public administration rather than those required for planning and policy making which were described in Section 5.1.

The present information system, situation and shortcomings could be summarized as follows:

- 9 Provinces - Provincial Councils being established.
- 25 Districts headed administratively by a Government Agent (GA).
- 245 Assistant Government Agents' Divisions.
- 4,073 Gramaseva (GS) Divisions which are the smallest administrative units.
- 25,000 Villages, which forms nonetheless the basic conditional network of the country and which have a genuine administrative reality due to the birth and death registers, the electoral lists, etc.

The different departments and ministries which have proliferated since independence tended to set up independent information networks. These networks flowing directly from the ministries in the capital to their respective "field organizations" at the regional or local level have tended to collect only that information, usually financial which is closely linked to specific activities.

Since a number of government departments (ministries) in particular technical departments, such as education, health, irrigation, highways, etc. and all public corporations, do not come under the influence of the GA, the information generated by these bodies at least partially by-pass the regional or local administration.

The technical departments specialized in the collection of data, like the Department of Census and Statistics which carried out the majority of surveys and censuses in Sri Lanka, function in the same centralized way and consequently "a considerable time elapses between the time data is collected and the time the data is made available for decision-making at district levels. It should be added that the information which does come down to the district again is apparently never broken down to beyond the AGA division level."

5.3 Some Projects on Information Systems in Sri Lanka

Different types of needs, either for sectoral policy analysis, and planning or management improvement of government services has given result to projects formulated to set-up or improve upon information systems. In recent times several such projects could be identified with
(1) Low income families

- Number of families with income below
  a) $0
  b) $100 to $1000
  per month

- Identified cases with severe
  poverty conditions:
  a) More than three
  b) More than three, and
  d) More than three
  e) More than three, and
  f) More than three
  per month

(2) Inadequate

- Assistance whether the
  assistance cannot help
  sufficiently the gross
  income above the
  poverty line.

- Consider what additional
  assistance would be
  necessary for poverty
  line.

(3) Poverty level

- Consider aspects
  necessary for poverty
  line.

(4) No data on the
  potential

- Shareland in potential
  productivity.

- Estimate the potential
  increase of productivity.

- Consider aspects
  necessary for productivity
  line.

(5) Information needed

- Consumer to high
  productivity.

- Estimate the potential
  increase of productivity.

- Consider aspects
  necessary for productivity
  line.

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<tr>
<th>Feature Identification</th>
<th>Information Needed</th>
<th>Objectives</th>
<th>Type of Test or Categorized</th>
<th>Data availability</th>
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<td>E. Division</td>
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<td>Number of families with income between $100 and $1000 per month</td>
<td>Identified cases with severe poverty conditions:</td>
<td>Yes</td>
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<td>Yes</td>
<td>(2) Agricultural Extension Service, Dept. of Agriculture</td>
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<td>Number of families with income above $3000 per month</td>
<td>Identified cases with severe poverty conditions:</td>
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<td>10.1</td>
<td>Low level of education/ ignorance, lack of interest in school attendance.</td>
<td>Assess the need for education, level and quality of education, utilization of available services and to identify beneficiaries of the education.</td>
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<td>10.2</td>
<td>Low level of education/ ignorance, lack of interest in school attendance.</td>
<td>Assess the need for education, level and quality of education, utilization of available services and to identify beneficiaries of the education.</td>
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<td>Unsatisfactory domestic water supply.</td>
<td>Assess the quality and level and find out ways and means to improve the level of education.</td>
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<td>10.4</td>
<td>Inadequate health facilities.</td>
<td>Assess the adequacy, quality and distribution of the available services and to identify beneficiaries of the services.</td>
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<td>Emergency, Crime, OOH, social ills, lack of popular organizations, lack of good volunteers.</td>
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<td>C.I. Division</td>
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in-built components for introduction of modern information technology as part of the package with technical aid from bi-lateral or multi-lateral donor agencies. In some cases they are an adjunct to a main development programme. In view of the specific focus of this paper for information systems and information technology for regional planning, this Section will review five such selected information-systems projects which have a relationship to regional planning. They are:


b) Pilot Project for the establishment of a Data System for decentralized planning and administration at Kalutara District Ministry of Home Affairs – ESCAP-UNESCO. 1984.


d) Information System for Local Level Planning. A Study in Hambantota District in Sri Lanka. IRDP Hambantota/Human Settlement Division, Asian Institute of Technology (AIT), Bangkok.

e) Information System for Monitoring Development Indicators at District level. A Demonstration Exercise for Nuwara Eliya in Sri Lanka. ILO-ARTEP. Plan Implementation Ministry.

5.3.1 The IRDP Monitoring Project

The IRD Programme, after being implemented for six years, was evaluated independently by a ILO-ARTEP team and also by a review mission of the World Bank. It was revealed that qualitative improvement to the programme could be made by setting up an information system. It would also lend support to the phasing over of the projects to a district planning process. Several donors have already started using computers in planning and management of IRD Projects and at the centre (RDD) felt the immediate need to give directions for achieving comparability and some form of unified approach both in the systems development and technology applied. Technical support of the Netherlands Government was obtained to get MDF consultancy by MPI-RDD for a Monitoring and Evaluation Unit Project (MEU Project).

The background papers setting up the Monitoring and Information System consultancy comments that "the role the RDD has played so far in the achievement of the IRD Programme objectives has been relatively passive both in terms of planning and monitoring. The decentralized political and administrative set-up in Sri Lanka has favoured the development and maturity of district-based institutions." The broad objective of the MEU Project as stated in the Project Document of December 1986, is 'improve the Management Information System at the MPI/Kachcheri PU levels, to enhance the coordinating functions with the inter-district comparative and sectoral analysis.'
To achieve the above objective, four implementation phases were identified, spread out over two years:

First Year - Phase I Jan.-Aug. 1987 - Preparatory Phase.


Some of the outputs are:

1) A common set of terminology, concepts and reporting formats.
2) A Manual describing the framework of a common information system.
3) A standardized set of procedures and guidelines enhancing the problem-solving capability at RDD Headquarters level and District levels.
4) A standardized set of procedures and guidelines to expedite donor reimbursement.
5) An operational micro-computer system at RDD Headquarters level.
6) Training of staff.
7) Presentation of a report analyzing the need for micro-computers at district offices.
8) Establishment of a data base at the RDD Headquarters.

In the Phase I and Phase II periods, the Financial Module was developed, discussed with all Project Directors, accepted for implementation, training provided and commenced implementation with the setting up of micro-computers to each Project Office ensuring compatibility with each other and the centre.

The Phase III has begun with preparation of the Physical Monitoring Module, and the Geo-based Information Systems preparatory work. A series of Workshops in mid-August 1988 attempted to reach consensus among many IRD Projects.

The 1988/89 programme is to implicitly incorporate:

a) The need for institutional development in general.

b) The need to strengthen data handling and processing at RDD Headquarters level.
c) The need to strengthen the understanding for the MIS restructuring exercise at the PO level, and providing to POs training, if requested.

d) The need to link to the Financial Module the physical progress monitoring indicators.

e) The need for adequate internal and external training and manpower development with regard to points a), b), c) and d) above.

5.3.2 Kalutara District Geo-based Data Systems Project

'The Geo-based Data System for Regional Development Planning' as it was named by UNESCO/ESCAP Project Report 13/ correctly identified the gaps in the availability of data at sub-national levels to cater to the growing needs of the decentralized development structures referring to sections of the District Development Councils Act No.35 of 1980. It concluded that "if the new development structures are not to be constantly paralyzed on every level and if the productivity of projects is not to be threatened by the lack of pertinent information, it would seem to be indispensable to establish a modern information system, making full use of computerized techniques and capable of managing:

- the data from various censuses and surveys; and
- the data gathered by the departments responsible for the 15 spheres of activity identified as having priority in the District Development Councils Act."

The functions of the project were identified as:

- to set up a system of reference which would be common, standardize the sectoral data base;
- to gather together and manage all existing census data on population, agriculture, livestock, etc.:
- to update the above data base regularly;
- to make data easily accessible;
- permit data analysis which would enumerate phenomena, provide information in regional context, demonstrate mechanisms of specific problems, predict evolution and facilitate planning;
- to bring together and make accessible the data generated by other departments;
- to permit the compilation and exploration of a land-use inventory based on existing maps, aerial photos, satellite imagery;
- to provide local logistical support for census operations.
The report spells out the justifications for building and improving local information-handling capabilities as follows:

a) Standardization of referring system will be ensured de facto which in turn will improve the precision of the inventories and will facilitate the work in preparing for them;

b) the information will remain at the local level and this will be available immediately after each inventory;

c) the decentralization of operations, such as input verification and validation will improve the quality of the data and will permit substantial saving of time in the organization of data;

d) the central administration, freed from the work of data sorting and organization, will be able to devote more time to a detailed analysis of results;

e) decentralization will create professional posts at the local level and encourage the acquisition of the know-how needed for amelioration of the quality of the data collected and for future improvements in the information system;

f) the up-to-date files will provide valuable information for rapid implementation of new inventories or of sample surveys.

The need for a system of geo-coding has been apparent in several points of the analysis. In addition, the discussions held by the mission with regional and national officials showed that all of them required cartographic data which they considered to be the most effective information in supporting decisions. In summary, a geo-coded, computerized system would offer the following advantages:

a) It would provide, above all, an indispensable reference base for the standardization and coordination of collection and storage of local information. If correctly chosen, this reference base can ensure greater precision in the geographic localization of information and evolve to meet future user needs;

b) it would give the users a simple means of obtaining information while enabling them to request data at diverse spatial levels according to their needs;

c) it would permit output of the data sought or the calculations requested in cartographic form which is easily understandable yet effective in facilitating the study of problems and the communication of results which are in general useful for decision-making;

d) it would considerably facilitate the undertaking of various censuses and surveys by offering a framework which is ready for use and compatible with other data bases;

e) it is an indispensable pre-requisite for any inventories concerning land-use.
The potential users of the information system fall into several categories. They can be identified, in order of increasing importance as seen by the consultant, as follows:

Users outside the region:
- organizations responsible for inventories;
- organizations providing technical development support;
- research organizations.

Users at the district level:
- the Planning Unit (which will prepare information for the other users);
- the Government Agent;
- the Development Council;
- the various technical services in need of information.

Users at the local level:
- Members of Parliament;
- the Assistant Government Agent;
- local representatives of the technical departments;
- citizens wishing to inform themselves on the region and the development activities carried out by the Government and the public services.

It was observed that the process of democratic decentralization of development in which Sri Lanka has been engaged for several years will be able to achieve the desired success only if an effective information system is set up rapidly in the different regions of the country. The present extremely centralized system does not provide regional and local decision-makers with the easy and rapid access to information needed to ensure the development of their constituencies. In summary, the functions and services to be expected from the information system are:

a) To bring together and to facilitate access to, analysis of and communication of data which have already been collected by survey organizations, local administrations, and technical departments concerned with development projects;

b) to permit the compilation of land-use inventories based on non-conventional sources (maps, aerial photography, satellite imagery);

c) to support automated cartography of themes or problems to be studied;

d) to facilitate the communication and dissemination of cartographic data outputs to diverse user groups, thus ensuring the "user oriented" nature of the system;

e) to provide local and effective logistical support during future censuses and surveys.

The required follow-up on the Kalutara Project has been rather slow and considerations on improving and adaptation of the system to other Kachcherries are still on-going.
5.3.3 Sri Lanka Land-Use Information System Project
of the Land-Use Policy Planning Division

This Project has been identified, based on the following logic as studied in the documents. Planning at district levels require more detailed information. The questions tackled might include:

- Planning of new agricultural settlements.
- Rehabilitation of tanks.
- Problems of unplanned encroachment on State land.
- Are alternative kinds of land-use compatible with both land capability and the aspiration of the people?

Land-Use Planning needs information on:

- Size of land holding required to support a family.
- Location and designing irrigation, drainage, and soil conservation works.
- Essential infrastructure of housing, water, power, roads, machinery, farm inputs, storage, processing, marketing, and finance.
- Management guidelines for each combination of kind of land with kind of land-use.

Land-use planners and decision-makers need information on topography, soil, climate, and water resources in preparing development plans. These plans must combine the technical expertise of officials, the experience of land users and their joint assessment of the improvements that can be made in the physical environment and farming practices within the short period of the plan and the finance available. The Land-Use Policy Planning Division of the Ministry of Lands and Land Development operates land information system using a micro-computer. Primary information about land is abstracted from existing maps of topography, climate, soil, and land-use. These data are then analyzed in terms of land suitability for wide range of land-use types. The system can produce on demand tabular data, written descriptions and computer-printed maps of individual land characteristics, such as slope class, or interpretations of the primary data, such as length of growing season, soil erosion hazard and land suitability for specific crops.
The headings under which information is stored is given below:

<table>
<thead>
<tr>
<th>Primary Information</th>
<th>Interpretations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location:</strong></td>
<td></td>
</tr>
<tr>
<td>grid casting</td>
<td>length of growing period</td>
</tr>
<tr>
<td>grid northing</td>
<td>length of second growing period</td>
</tr>
<tr>
<td>cell size</td>
<td>erosion hazard rating of FAO</td>
</tr>
<tr>
<td>district</td>
<td>soil type</td>
</tr>
<tr>
<td>Geological information</td>
<td>erosion hazard potential</td>
</tr>
<tr>
<td>elevation</td>
<td>land suitability class</td>
</tr>
<tr>
<td>dominant slope</td>
<td>and sub class for 72 land types</td>
</tr>
<tr>
<td>landscape facet</td>
<td></td>
</tr>
<tr>
<td>Agro-ecological region</td>
<td></td>
</tr>
<tr>
<td>mean annual temperature</td>
<td></td>
</tr>
<tr>
<td>rainfall: mean annual</td>
<td></td>
</tr>
<tr>
<td>75% confidence annual</td>
<td></td>
</tr>
<tr>
<td>mean. Wettest month</td>
<td></td>
</tr>
<tr>
<td>river catchment</td>
<td></td>
</tr>
<tr>
<td>groundwater depth</td>
<td></td>
</tr>
<tr>
<td>Soil: Sri Lankan classification</td>
<td></td>
</tr>
<tr>
<td>FAO legend</td>
<td></td>
</tr>
<tr>
<td>depth</td>
<td></td>
</tr>
<tr>
<td>texture</td>
<td></td>
</tr>
<tr>
<td>drainage</td>
<td></td>
</tr>
<tr>
<td>certain</td>
<td></td>
</tr>
<tr>
<td>exchange</td>
<td></td>
</tr>
<tr>
<td>capacity</td>
<td></td>
</tr>
<tr>
<td>organic matter</td>
<td></td>
</tr>
<tr>
<td>nutrient status</td>
<td></td>
</tr>
<tr>
<td>erosion, actual</td>
<td></td>
</tr>
<tr>
<td>natural vegetation</td>
<td></td>
</tr>
<tr>
<td>dominant land-use</td>
<td></td>
</tr>
<tr>
<td>present secondary use</td>
<td></td>
</tr>
<tr>
<td>land status</td>
<td></td>
</tr>
</tbody>
</table>

For national planning maps are produced at a scale of 1:500,000. These maps are built up of grid cells, each 5 km square. Such maps give an immediate impression of land use potentials and problems and new maps can be generated on demand using the information stored in the computer. The Project is on-going with preparatory work to establish district units with trained staff.

5.3.4 Information Systems for Local Level Planning:
A Study in Hambantota District IRDP

Among the eleven District Integrated Rural Development Projects implemented in collaboration with multi-lateral and bi-lateral aid agencies, the NORAD-funded Hambantota District Integrated Rural Development Project (HIRDEP) had tried many innovative approaches, one of which is the local-level planning exercises. There were also attempts on training local-level staff, mapping, and application of the computer technology for geo-based information systems. The Human Settlement Division of the Asian Institute of Technology collaborated in these activities.

The guiding principles in this attempt on information system is stated as - "In formulating proposals for a model for the district level information system we were mainly concerned with the cost, and the administrative and technical feasibility of it. In the long run it would be possible to modify and develop it into a more effective system. Short-term and long-term measures were to be identified to meet the following requirements:

1) The information generating and using components should, as far as possible, carry on their work independently."
2) Wherever information is generated that would be used by agencies other than the one generating it, the information generated should meet the needs of all its users. This calls for consultation among such agencies to determine the information needs, specifications, methods of processing and dissemination.

3) Information generated by any agency should be easily accessible to users from other agencies which calls for methods of information storage and access which make it possible for others to use this information.

4) Information about the availability of information should be freely available to all component members in the system.

5) Duplication of information should be avoided except when required specifically for cross-checking.

6) There should be a coordinating agency responsible for the overall functioning of the system together with an organizational structure to ensure that the system conforms to the above requirements.

The first step to create the system is to inventorize all available information. Second, is to identify the information needs for planning. Then the gaps are to be identified. Since the requirements change from time to time, it is necessary to keep generation of information under constant review.

The study team claims that the model suggested can be worked within the existing organizational arrangements for administration and planning. It does not envisage the creation of a super agency for information but looks at needs and availability of information and attempts to bridge these two. It depends very much on an appreciation of the need for some changes most of which could be accomplished with goodwill and cooperation; but no system works without some overall coordination, guidance and supervision. Therefore, the recommendation is that the responsibility should be entrusted to the Government Agent and the Ministry of Plan Implementation who seem to be the logical agencies to undertake it within the present organizational arrangements at district level.

Some discussions were generated on these recommendations. However, with the passage of time follow-up action was weakened and interest shown at the national levels were not sufficient to adopt the system at a national scale. In the project district, some useful changes have been done with the interest shown by the GA.

5.3.5 Information System for Monitoring Development Indicators at District Level - Nuwara Eliya

This was a collaborative study undertaken by the Ministry of Plan Implementation and ILO-ARTEP. At national level, the Ministry of Plan Implementation is charged with the responsibility for progress monitoring. This was an attempt to do the same at sub-national levels.
Apart from the progress monitoring of government activities, the monitoring system envisaged under this project covers social and economic development within the district. This involves the monitoring of important variables, such as production, incomes, population, prices, employment, nutrition levels, etc. The aim of such monitoring will be to assess their performance individually, as well as in relation to the longer term development process operating in the district.

An important aspect of the proposed exercise was the district-wise disaggregation of the overall performance and permits an easy inter-district comparison of performance.

Two criteria were suggested for the selection of indicators, which would make up the District Information System:

a) The degree to which they reflect differences in the level of living of the population of the district; and

b) the degree to which they reflect differences in effectiveness in implementing Government policies and programmes.

The District Information Framework arrived at a set of indicators which were classified as follows:

1. Outputs
   1.1 Goods
      1.1.1 Physical production by industry.
      1.1.2 Market value of production
      1.1.3 - of which the value of the amount consumed by producer's household.
   1.2 Services
      1.2.1 Activities and facilities.
      1.2.2 Staff-time spent in delivery services.

2. Inputs
   2.1 Land by crop use.
   2.2 Capital (by industry)
      2.2.1 - of which the amount produced within the district.
   2.3 Recurrent (by industry)
      2.3.1 - of which the amount produced within the district.
      2.3.2 - of which wages and salaries.

3. Impact
   3.1 Incomes, Wealth and Employment.
      3.1.1 - of which the amount in target groups.
   3.2 Nutrition, Health, Literacy and Housing.
      3.2.1 - of which the amount in target groups.
   3.3 Human and Biological Environment.
4. Institutions

4.1 Performance of Government Bodies.
4.2 Performance of Private Enterprises.
4.3 Popular participation in planning and implementation.

The team of consultants commented that in practice this general framework will have to be modified or filled with data which represent very rough estimates or proxies.

The staff of the District Planning Unit of the Nuwara Eliya District were utilized to implement the project. Four Quarterly Reports were produced containing various levels of information. Lot of staff time was demanded from the beginning. No serious attempts were made to adopt a participatory approach with the reporting agencies. There was lack of communication and feed-back. The exercises came to a gradual halt within two years.
6. An Assessment of Information System/Information Technology Situation

6.1 Data and Information Requirements

The development planning situation of the country and its decentralized administrative mechanism is changing constantly and continuously for the last two decades, that even the data and information requirements cannot be assessed as a static feature. From a controlled, closed door economy, Government policy has changed over to an open economic system. Consequently, planning is getting a secondary place. However, public sector investments are systematically programmed. Sector studies are undertaken at irregular intervals. As such, data and information base is indispensable.

For regional planning, the requirement of data is at sub-national levels, at district, the AGA and the village level. It was seen with IRDP experience, that even for partial planning of the public sector investments, all on-going investments in the region need to be known. The situation analysis undertaken by RDD/MPI on IRDP districts, in relation to problems, potentials and objective setting, more comprehensive data than available is required. Such data need to be disaggregated and with a time-series. They need to be statistically amenable for projections. It is also required that data and information should be reliable to win over acceptance by parliamentarians, people's organizations and beneficiaries. Glaring inaccuracies and mistakes can cast grave doubts and disbeliefs on the whole planning process. This perhaps is a main requirement from information system in a politically over-sensitive society, such as one find in Sri Lanka.

6.2 Data and Information Gaps

Though it is often said that for a third world country the data and information base prevailing in Sri Lanka is generally satisfactory, there are major gaps in the system as far as regional planning is concerned. The whole process of data and information gathering is geared to central level requirements. In addition, they are mainly for the purpose of regular administrative management and national accounting purposes. Regional planning has never been explicitly practised in Sri Lanka. Therefore, gaps in the data and information for regional planning emerges from the experiences such as the IRD Programme. What emerges out of the discussion of each information system project reviewed in Section 5 are as follows:

a) Non-availability of data at village/AGA and district levels though they are collected very often at these levels by different agencies.

b) Non-availability of data on production, inputs, consumption, trading and regional income statistics at sub-national levels.

c) Non-availability of inter-district trade flow data.
6.3 Improvements in Regional Planning with introduction of IS/IT

It was seen that a series of uncorrelated efforts are being introduced by various agencies in Sri Lanka. Some of them are on-going projects. Some others have completed their project cycle but has not entered into the process or the system. Many of the projects have either had direct dealings with regional planning efforts or indirectly influenced them. The District Planning Unit/IRD Project Office in combination has gradually evolved as the focal point or the district level central clearance-house for information and data related to regional planning. There is already a process of systematic situation analysis, project identification, and formulation followed-up by appraisals by donor missions in many sectors of the district administration. This clearly has influenced planning in each sector. The gradual but unorganized build-up of information at the project level and implementing agency level has improved the ability to do project planning and sectoral planning by each agency. At the Project Office level, this information build-up and the gradual introduction of computer technology at the Project Office a level, has improved the regional planning exercise. This has resulted in a district planning framework of a multi-sectoral nature.

A noteworthy feature one could identify through this build-up of IS/IT at district level is the gradual emergence of a better understanding between the administrators cum planners on the one hand and also with the politicians. This is amply demonstrated by the way the District Coordinating Committees of IRD Projects which are presided over by the District Ministers and attended by the Members of Parliament, has improved its deliberations and consensus-reaching and decision-making. From a forum of accusations and in-fights it has now turned out to be a useful forum for discussions of IRDP related planning and general development issues of the district. This process emerged gradually with the tabling of very informative but timely progress review reports which became the basis for such meetings. With the introduction of computers to the Project, these reports are now presented in different forms of aggregation and disaggregation one of which is the electoral level disaggregation of development projects. Tables, graphs, and maps with audio-visual presentation has added quality to deliberations and rationality to decision-making.

At national levels too, when inter-district comparisons are made and shifts in financial resources are considered the historical data on financial performance are made available to decision makers to make quarterly readjustments so as to achieve full utilization of Treasury allocations for IRDP. The IS/IT of IRDP even at this very preliminary stage is establishing a bridge between district/region and the national level monitoring agencies such as the Progress Control Division of the Ministry of Plan Implementation.
6.4 Planning areas necessitating the use/adoPTION of IS/IT

The review of the IS/IT projects undertaken by various agencies in Sri Lanka in Section 5 shows that apart from the uncoordinated nature each one of them is conceptualized for specific need of the agency/project concerned. It may also be the reason why they do not seem to have a capacity for self-generating survival or sustainability after the withdrawal of the project funds. Another important feature of the IS/IT projects is that since is no specific focal point responsible for regional planning. They also have a weakness of not having the inter-sectoral/inter-spatial analysis incorporated into the system. Therefore, the planning areas necessitating IS/IT in Sri Lanka could be identified as follows:

a) Multi-sectoral analysis.
b) Linkage analysis of investment proposals.
c) Predictions, projections and perspective planning and scenario building.
d) Features to be used for creating awareness among people on development issues.
e) Project analysis/investment analysis.
f) Location analysis/spatial analysis.
g) The inter-sectoral and inter-electorate allocation decision-making.
h) AGA division storage of information.
i) Inter-regional input/output analysis.
j) Inter-provincial allocation of resources.

6.5 Degree to which IS/IT has been adopted/or is likely to be adopted in Sri Lanka

Regional planning, in practice is a meso-level activity with direct links to micro and macro levels. In Sri Lanka, until the present process of building up the provincial level commenced, the district remained the meso-unit for development planning. In terms of planning levels, therefore, the main feature is that the IS/IT has been completely absent from the provincial levels. An immediate and a concerted effort in a organized form need to be undertaken on a priority basis to establish IS/IT at provincial level. The newly-formed Provincial Councils need to have a provincial focus in its approaches to development. This needs the formulation of Provincial Profiles. The available data and information on the present situation need to be aggregated at provincial levels. Mechanisms need to be established to aggregate district data and information at provincial levels and up-date them. They need to be analyzed and interpreted. The planning, programming, implementation management and monitoring, evaluation cycle need to be introduced at the aggregated level of the province. Policy formulation and compatibility with national levels need to be undertaken in practice at this level. These plans need to be competitive at national levels with those of other provinces and well articulated to obtain allocation of national funds. Therefore, the demand is getting generated for introduction of IS/IT at this level. A Provincial Planning Unit is in the preparatory stage, utilizing the available manpower from the District Planning Units within the provinces. In IRD Project Offices the information technology has just been installed, training is on-going, and software packages
inclusive of a specific Financial Information Module and Geographical Information Module has been formulated. The IRDP Policy Guidelines and Planning Guidelines have been formulated. Among the software packages introduced are the Lotus 123, D Base 3, Wordstar, Time Line and Autocad. The need to continue with on-the-job training in planning methods in its applied form with special emphasis on multi-sectoral planning is being discussed by concerned agencies, such as Finance and Planning Ministry, Plan Implementation Ministry, Provincial Councils Ministry, and Sri Lanka Institute of Development Administration and the Administrative Reforms Committee.
Changes Taking Place

7.1. Generalization

It has often been observed that there are no regional planners in Sri Lanka. There are only administrators and coordinators and a few trained in some sort of project planning. There is said to be only a very thin line differentiating the job-content among them. With a limited exposure to planning methods and techniques and to placing hierarchical seniority and experience in general administration as the main concern, and being transferred from one institution to another, and the limitations placed by one's disciplines at university levels (most general administrators come from fields of humanities, such as languages, Sinhalese, Tamil, English, Latin, Greek and Pali or Western Classics and History) the most senior administrators repeat at meetings that there is only a very thin margin between administration and planning.

At the sub-national levels, the experiences in IRDPs show a gradual change in the job content of the regional planners necessitated by the planning, appraisal, implementation and evaluation procedures introduced by the external donor agencies. This has been further enhanced with the introduction of computerization and unified information systems. The challenge was how to pass over these procedures from project-related investments over to the normal activities and services of departments. In the meantime, the introduction of Provincial Councils the sub-national level development planning is undergoing changes that are definitely bound to change the role of the regional planner.

With the establishment of the proposed Provincial Planning Units, there is the necessity of having a team of regional planners whose job content is not project planning and implementation or general administrative coordination but the activities involved in techniques and methods of regional planning, that is in a multi-sectoral planning process. This means that their job contents would change requiring policy analysis, planning skills, research and investigative skills, communication skills, etc.

7.2. Content and quality

The job content hitherto was to identify certain sectoral projects in terms of the circulars and guidelines sent from the line ministry and implement them within the budget limits which are annually passed down from the centre.

The uniformity introduced by the IRDP Financial Module, the formats to computerize, store and retrieve them at project levels, the divisional levels, and the district levels, opens up possibility of not only improving financial performance but availability of data for future project planning based on comparative experience. They could be analyzed on costs, designs, implementability, etc. and experience passed on from one project planner to another. When sectors are aggregated to multi-sectoral projects in one geographical area, such aggregative analysis of one AGA Division within a district could be compared with another in the same district, thus making it possible to improve upon intra-regional comparison for allocation decisions. When historical data is built-up over a period of time and made available at that location the
analytical part of the job content of the regional planner is greatly improved giving him the ability to differentiate geographical area configurations that are required by the political authorities. When these could be done graphically and with maps the influence of the regional planner would gradually increase.

7.3. The scope and methods

Not only is the job content changing in quality, but in scope too it changes because the computerized data in comparable form would be available at his level along with the ability to analyze the inter-relationships, linkages and their effects and impacts. This is giving him a central place in the district/provincial administration which gives him wider scope of influencing sectoral planning agencies. This has been realised to a great extent in IRD Project experience. The allocation of fertilizer stores of the Agrarian Services Department with the irrigation rehabilitation of the Irrigation Department and the agricultural extension services of the Agricultural Department was possible to be done because the regional planner, in this case the IRD Project Director had all the data related to the sector. He also could influence the national planner in his perspective planning by possessing the above knowledge. The scope of the regional planner to draw composite scenarios for future of a geographical region is increased by the availability of this information system and the technology.

7.4. Timeliness and reliability

The introduction of the Financial Module ensured that the data from line agencies were reported to the Project Office on time and accurately. Its analysis and interpretation, therefore, had the stamp of reliability and acceptance by the implementing agency. Its interpretation serves the agency concerned to improve upon the implementation progress and leads to management efficiencies. This increases the influence of the regional planner in the team approach.

7.5. Spatial analysis

Spatial analysis and location analysis was a hitherto weak area in sub-national planning in Sri Lanka. The introduction of the software package called Autocad to some IRD Projects (Hambantota, Moneragala, Nuwara Eliya and Ratnapura) and the special training programme undertaken by the Human Resources Division of AIT, Bangkok, has changed the role of the regional planner from a mere interpreter of socio-economic and historical data to one with having the ability and technology to produce maps and graphs on distributional implications and linkages. At provincial levels in the future this ability and technology would play an important role in resource allocation policy formulation. If inter-regional trade flow data could be compiled in the future, the techniques of input-output analysis could influence the national level decisions of inter-provincial allocation of resources by the National Financial Commission.
<table>
<thead>
<tr>
<th>ACTIVITY NO</th>
<th>ACTIVITY / SUB ACTIVITY</th>
<th>STARTING DATE</th>
<th>ENDING DATE</th>
<th>REPORTS</th>
<th>REPORTING H/MILESTONE</th>
<th>SUB CUTOFF / RESULT DESCRIPTION</th>
<th>ACHIEVE MENT</th>
<th>REMARKS / ACTION TO BE TAKEN</th>
<th>RESPONSIBILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Fix door shutters</td>
<td>15.10.88</td>
<td>25.11.88</td>
<td>1</td>
<td>25.11.88</td>
<td>25 door shutters fitted to door frames according to plan</td>
<td>100%</td>
<td></td>
<td>S.D.</td>
</tr>
<tr>
<td>13</td>
<td>Prepare and forward technical completion report</td>
<td>25.11.88</td>
<td>31.01.89</td>
<td>1</td>
<td>31.12.88</td>
<td>Technical report indicating that 25 latrines have been constructed satisfactorily according to plan started</td>
<td>10%</td>
<td></td>
<td>S.D.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>31.01.89</td>
<td>1 letter of the KN ERP indicating that the Technical Report about the construction of the 25 latrines is accepted by the PD</td>
<td>100%</td>
<td></td>
<td>S.D.</td>
</tr>
</tbody>
</table>
7.6. Disciplined thinking, change of attitudes, and perspectives

The Secretary, Ministry of Home Affairs, observes that the Kalutara District Project has "in fact introduced silently and effectively a computer culture into the administration, instilling discipline in collection of facts and figures in time, and relieving many an employee of the drudgery of several man hours of routine dull work."

Another example that could be quoted is the attempt by GTZ to follow the ZOPP Planning method in the Kandy District IRDP. A communication-cum-training workshop held over a ten-day period for over 40 district-heads of implementing agencies introduced the logical framework for planning. A series of village level meetings with target groups identified the needs as perceived by villagers. These project proposals presented in a one-page format is then sent over to the relevant implementing agency. Figure IV gives the content of the format.

This format introduced disciplined and logical thinking, a uniformity in presentation, direct link between project formulation and project monitoring and evaluation, and computerization of the information. Initial responses were somewhat discouraging. The project team had to visit and re-visit the agencies and complete the processing of data and information. This has enhanced the planning skills and systems design and programming ability of the agencies not only regarding IRD Projects but also their normal activities.

A series of Objective Oriented Project Planning (OPP) workshops were arranged by the MDF consultancy team in three district centres bringing in the project management teams and line agency district heads to discuss the proposed Physical Monitoring Module. It included deliberation on physical indicators, means of verification, scheduling, etc. Computer demonstrations on a package called Time Line for scheduling and monitoring resulted in inter-change of ideas about their applicability and usefulness.

These details show that as regards some recent projects for introduction of decentralized information systems and information technology, the packages are being worked out in close collaboration with the line agencies concerned, directly related to their day-to-day operational needs. They are being undertaken along with on-the-job continuous training programmes. The prospects for adoptions of these practices into the normal process of the agencies work, therefore, seem to be more positive.
(8) Problems

8.1. General situation

While there had been general acceptance for the need of information systems and introduction of computerization in the country, the efforts had been disjointed and ad-hoc leading to discontinuities, non-sustenance, multiplicity of efforts, over-lapping and at times even counter-productive. As a response to this, certain steps were taken at national level.

The Computer and Information Technology Council of Sri Lanka (CINTEX), the apex body for policy formulation and implementation has been formed. It has identified several applications of computer technology that would help in the development effort of the country. The use of computers for decentralized development is one such area.

8.2. The need for coordination of IS/IT at District/Provincial level

From the review undertaken in the previous sections of this paper it is obvious that though at central level some IS/IT projects are not fully coordinated, this could be easily achieved at district levels. This is mostly because the national agencies use the same district level staff to implement different such projects. Even under the Provincial Council devolution package, the Department of Census and Statistics would remain a centrally controlled function. At District and Provincial levels the relevant planning bodies could coordinate the effort because they are the end-users. At present they suffer from duplication and related waste of time and resources.

8.3. Lack of appreciation and lack of follow-up

Though much lip-service has been done by general administrators and specific project managers, little effort has been undertaken to explain fully the various facets, and implications of IS/IT. and its use. Therefore, apart from opening speeches at workshops, seminars, and paper supplements, further follow-up to enhance the understanding of the contents of IS/IT is required. At present, appreciation and understanding diminishes over time.

8.4. Limited equipment for training at district level

While some equipment has now been installed at several Kachcheries, they are jealously guarded as properties of specific agencies and are not available for training in general. Most of the training facilities are concentrated in Colombo. In some districts there is complete absence of such facilities. A proper training programme at district/province levels accompanied with required equipment is necessary.
8.5. **Limited facilities for trained staff to use the techniques**

Unlike many other techniques and methods that have been introduced with training, there is a limit to which computer facilities could be made available to each district line agency for their use. As a consequence the follow-up training and usage on the job, which is essential, is not possible at district/province levels. This results in gradual loss of trained talent.

8.6. **Need for organizational changes**

The introduction of information systems and technology demands certain changes in the organizational system of the agency concerned, reallocation of work-assignments and time-schedules and responsibilities. This means changes in the work-procedures and documentation. Such aspects are generally neglected so that the system does not enter into the day-to-day working process. The amenability of the old system to computerization is at times not easy and cannot be left out to evolve. Misconception about financial losses in the loss of overtime work or reduction of employees, need to be specifically looked into. At times, there is also the need for secrecy that has to be adhered to. The authority, responsibility and legal requirements involved in the filing system need to be solved.

8.7. **Lack of maintenance expenditure**

The most acute need of the district agencies is that along with the supply of equipment, (may be through a donor-involved aid project) is not adequately supplemented and sustained with the required after-project maintenance and recurrent expenditure. This would be true of computerization which needs items, such as sophisticated equipment been replaced and maintained by competent agents, software packages, air conditioning facility, back-up support for electricity breakdowns, and large volume of paper.

8.8. **Lack of technical service facility at district levels**

As is common to many backward regions of third world countries, there are certain districts of Sri Lanka where technical facilities from the centre cannot be obtained easily. Constant breakdown of electricity and telecommunications makes the position more difficult. Added to this, is the sudden drops in voltage. These technical difficulties need more organized efforts to obtain required technical support facilities.
(9) **Major issues**

The major issue that emerges out of this review is that though there is increasing demand for information system and technology, the following steps are still unclear:

a) What is the overall objective of the information and computerization systems attempted in the past at sub-national levels? Has it been explicitly set and agreed upon by participating agencies.

b) What purposes and outputs are the existing disjointed IS/IT projects trying to achieve?

c) What activities are left out of these projects, i.e. the gaps which need to be filled in the existing IS/IT projects-frame?

d) What time schedules are to be adhered to, with updating, to achieve the purposes and objectives over an agreed period of time?

It is necessary to assess the overall picture by some central level agency such as a planning body at the central level which is to serve the regional planning efforts of provinces, along with CINTEC and Provincial Planning Units, and prepare and coordinate a plan of operation.

(10) **Conclusions**

The review undertaken in this paper lead one to conclude that:

a) There has been many uncoordinated efforts by different agencies to set-up information systems and information technology at sub-national levels to serve specific needs.

b) The IRDP efforts at several districts is most interesting from the point of view of regional planning because they are multi-sectoral projects with spatial/physical planning dimensions as well.

c) The need for regional planning information systems and technology has gathered momentum along with the demand created for setting-up provincial planning processes.

d) The IRD experience and staff may serve as the core unit around which Provincial Planning Units may be arranged while the Regional Development Division at the national level could serve as the technical advisory body. It has already established a computerized management system for IRDPs.

e) The need to fill the gaps in the existing regional planning information system in a coordinated and systematic manner is greatly felt.
(11) **Recommendations**

Arising from the above issues and conclusions, the recommendations derived are:

11.1 A central level agency which will emerge in the devolution package as the organization responsible for servicing the regional planning efforts of the Provincial governments should be the coordinating authority of IS/IT for regional planning.

11.2 Since the present efforts are piecemeal and uncoordinated, the agency suggested above should survey and prepare a plan of operation in technical collaboration with a competent agency which could bring in experiences from relevant Third World situations.

11.3 Such plan of operation should clearly identify the overall objectives, purposes and project outputs along with details of activities spelt-out in a time schedule with responsibility of agencies clearly identified. It should elaborate the sources of funding and sustenance.
BIBLIOGRAPHY


