Scope Note –

This section contains drafts of articles relating to library and information development– other than papers relating to Papua New Guinea – from a collection entitled "Planning for library development: third world perspectives" and edited by myself.

The papers were published in book form by Dalhousie University, Department of Library and Information Studies. Please consult the published volume for the corrected and final version of the papers and for the diagrams. However, the papers do form useful web resources in support of much that is provided on www.pngbuai.com and are placed on the web accordingly.

John Evans

Extract 1 - Information Support for Socio-economic Development Planning

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Every country is continuously involved in socio-economic development activities intended to improve the standard and quality of life of its citizens. "Development" is the bridge between the hopes and dreams of people on the one hand and the realities of the world on the other. Development focussed on the achievement of social goals involves using the products, processes and practices resulting from scientific and technological developments, both within and outside the country, together with the formulation and implementation of legal, administrative, political and institutional policies, programmes and projects.

Effective and efficient development planning and implementation of plans require easy flow and exchange of data and information.

(a)   among those responsible for development policy and planning,

(b)   among individuals and groups in the community (i.e. beneficiaries of an participants in, development activities), and

(c)   between groups a) and b).

In a study of the factors that influence success or otherwise of over 200 rural development projects, some ten out of the twenty factors identified related to the flow of information between

the planning and implementation personnel and the people at the grass roots who were expected to benefit from the projects. It will be useful to examine briefly development trends in the countries of the third world.

Development trends in third world countries

Challenges of Change

In the 1950's and 1960's a number of third world countries following their decolonization, that is, their attaining political independence, began preparing plans and programmes for national reconstruction and development. This resulted in a series of national development plans and central control of government functions in most cases. In the 1970's and 1980's the dynamics of development threw up a number of "development challenges". In trying to meet the challenges there have been adaptations, adjustments, rationalization, restructuring and even total transformations in government and administrative structures. Of course the nature of the challenges and the changes were not identical in all third world countries, but several common features could be identified.

Directions of Change

Change in the orientation of planning, from a growth-oriented paradigm to one of growth with equity. This re-orientation called for new planning strategies.

Change in the structure of planning from that of a centralized approach to a decentralized approach. The latter is more directed toward sub-national, bottom-upward, planning with multiple development objectives.

Need for (a) disaggregated data and information for planning at different levels, and (b) analyzing and processing the data with speed and accuracy.

Another important influencing factor is the informatics revolution covering a whole range of emerging new technologies : microelectronics, the microchip; telematics and networking; optical electronics; powerful portable software; fast information processing; use of aerial photography, remote sensing, mapping, geographical (geocoded) information systems, etc.

These challenges and changes in development planning have not been effectively matched by the data and information systems in many of the third world countries, disclosing a gap between what is desirable and what is available - an information crisis vis-a-vis development planning.

The crisis is due partly to the top-down approach to planning and centralized control of government functions. The data system favoured macro-level planning, for example, national accounting systems covering national income, national savings and investment; foreign trade; monetary system, etc. Data is generated at aggregated level with some sectoral disaggregation suited to planning at national level. This is proving to be less useful and relevant to decentralized sub-national level planning with multi-objective approaches. Adaptation and/or transformation of information and data systems to the new planning strategies while perceived to be necessary is slow in implementation in third world countries.

Decentralized Development Planning: Critical Issues

The issues relate to the technical, technological and organization transformations in country-specific contexts. Decentralized multi-level planning necessitates attuning of planning and development to the structural, demographic, economic and social characteristics specific to each country and sub-national areas within the country. This entails sharing of planning functions at different area levels; devising mechanisms and procedures for the effective capture, processing, flows and management of data and information; interfacing and coordination between and among area levels; and interactions for meaningful participation of people.

Such a strategy is expected to make the planning process at the different spatial level harmonious, independent and participatory and the plans geographically relevant, authentic and implementable. Decision making will be based on a negotiated participatory process among the concerned parties and not imposed unilaterally.

Data and Information Requirements

In multi-level, multi-objective planning there will be several groups of information users at different levels with different information needs. Data will have to be aggregated at appropriate spatial levels. For example:-

- village households; village

- village groups

- district/country

- province; zone

- national.

Data will be needed on a larger number of micro-variables relating to distributional and equity parameters: for example:-

- income

- poverty

- employment; unemployment

- standard of living

- access to and delivery of basic services

- quality of life

- sustainable development.

The data will be needed on an universal or a large sampling framework.

As decentralized planning is area and people specific information will have to be provided on the:-

- cultural and behaviour patterns

- way the economy is handled

- institutional and organizational capacities

in the community. The objectives will be, among others, to:-

- plan feasible technology packages

- provide appropriate support facilities

- backstop the economy

- make necessary organizational and institutional arrangements to deliver resources and services.

Decentralized planning cuts across organizational levels. It is information intensive, information selective and information specific. In this context, design of the information system calls for

- identification of information needs at different levels

- identification of data and information generated at different levels

- large amount of data

- range and depth of analysis of data

- speed of processing as decentralized planning is a time bound activity; plans have to be prepared at various levels as per time schedules, integrated with each other and with the budgeting practices of the governments concerned, submitted in time for authentication and approval according to the prevalent practices of the area or country.

There are a number of deficiencies in the data systems of third world countries:-

- paucity of data;

- conflicting data, that is, multiple estimates of the same phenomenon in the files of different government units giving different estimates;

- irregular data, that is, lack of a definite periodicity in the supply or timeliness in the availability of data;

- imperfect data, that is, data of doubtful validity;

- irrelevant data;

- insufficient data, that is, gaps in the data sources or data bases;

- incoherent data, that is, information that does not relate to each other; and

- inadvertent errors introduced in sampling, computing, etc.

These factors impose limits to the nature and volume of data collection, the types of analysis and processing that may be performed within the time-frame and the kind of compromises that may become necessary. Studies have shown that deficiencies in the information provision are likely to have greater impact on information intensive plans than those that are not so information dependent. Since information systems supporting development planning in third world countries are more often than not relatively less efficient, an information-intensive planning approach is likely to suffer. On the other hand, collecting and processing data on a large number of variables at various levels to support the planning can make the information provision itself an expensive exercise. The problems are even more pronounced in regard to data on rural areas. It has been recommended that there should be less adherence to long and costly surveys and resort to more informal participatory approaches to data collection and reliance on local insight, for example, on rapid rural appraisal.

New concepts such as critical minimum information and reduced analytical approaches in planning as well as the applications of informatics in information systems have provided acceptable solutions to the problems of collecting and processing necessary data to provide timely information support to planning. To lessen the burden of large scale data collection and statistical processing, recourse is taken to such approaches as the following:

- Limited or bounded rationality, that is, arriving at satisfactory solutions rather than optimal solutions;

- Optimal ignorance, that is, not trying to know what is not worth knowing:

- Appropriate imprecision, that is, not measuring more precisely than needed;

- Rapid rural appraisal;

- Key informants approach;

- Successive approximation;

- Progressive learning;

- Learning through transects, etc.

Organizational and Administrative Reforms

Data on selected micro-variables and socio-economic indicators are contained in formal field surveys and studies, theses submitted for university degrees, etc. But there are no proper arrangements for the systematic extraction and provision of information and data from such sources to the planning bodies. The UNRISD has suggested the establishment of 'socio-economic observatories' in rural areas to obtain periodic data on socio-economic changes in those areas. With a view to enabling and supporting the new approaches to decentralized planning, organizational and administrative changes are being adopted. These include:

- Integrating information technology as an explicit and major support to decision making.

-        Establishing multi-level information structures to enable authorities at different spatial levels to interact with each other, that is, ensuring information flow upward, downward and horizontally across administrative units/structures.

-        Establishing specific institutional mechanisms/structures to direct information flows.

-        Ensuring that information structures are compatible and match with planning authority structures, that is, linking users of information with generators and providers of information. Such coordination may be achieved by

-        building the information structures into the planning authority structures; or if these structures remain separate, then

-        establishing consultative mechanisms for interactions and promoting understanding among the parties concerned at different levels and across administrative units.

Requisites for information system development

Timely provision of reliable and pertinent information facilitates problem definition, measurement and analysis; taking of inventories and gainful decisions; evaluation of plans, programmes and projects; and orienting planning to the people's perspective. As mentioned above a conceptual base for deriving data/information needs can be the four levels of planning: household; community; local and regional (with the country). For each level data needs may be derived through a combination of four major approaches in which key determinants include:

-        goals/sub-goals and policy areas (sector-wise and programme-wise);

-        scope of planning functions;

-        programmes/projects included in the plans; and

-        methodology and techniques of planning.

Identification of information and data will be aided by taking into consideration.

- planning stage, that is, pre-planning, action planning, implementation planning; and

- planning tasks/steps involved at each stage.

A purpose-oriented information system can help in problem identification and/or finding solutions to problems, or it may be a goal seeking system. The system should be capable of presenting analyzed and synthesized data in a readily usable form to different user groups at different levels. The different subsystems of an information system and different information systems must relate to and be compatible with each other.

To support multi-level planning information systems may be used in two broad contexts:-

- A general purpose system for use by an heterogenous group of users concerned with policy-making and planning at local and regional levels. Such planning-oriented information systems are designed to handle the tasks of diagnosis or problem-identification and for building up the macro framework of the plan; and

- Specialized specific-action oriented systems focussing on specific requirements, such as, sectoral planning or specific programme/project segments. A geographic information system is one such special category the information sources for which include spatial data sets derived from field surveys, aerial photography, remote sensing, satellite imagery, and existing maps and records.

The following aspects should receive careful consideration in setting up the information system:

- Establishing a reliable data collection mechanism at the sources and training personnel for inputting data into the system;

- Installation of microcomputers for performing specific planning and analytical tasks at various levels and networking them among themselves and with larger computer systems thus establishing a viable communications network throughout the community/country;

- Formulating/adopting relevant norms and standards for the work involved at various stages of data collection, input, processing, networking, dissemination;

- acquiring/developing suitable software for handling the various planning and data processing tasks;

- building up a sound personnel base; experts conversant with hardware, software and information system design, development and operation, in statistical methods, etc.;

- sensitizing top policy makers and planners about the potential of modern information systems; and

- managing smooth transition from the existing system to the new system making optimal use of existing resources - personnel, hardware, software, administrative structure, etc.

The types of information and data for development planning will include:

- Socio-economic information

- Geo-based or geographic information

- Special purpose information

- special programme-wise

- sector-wise

- district level information

- sub-district level information

- village level information

- household level information

Detailed inventory of the available data/information should be prepared. For each system its type (whether textual, factual, numeric, graphic etc.), data elements included, form and format, sources of data, and other appropriate details should be noted. An example for a geo-based/geographical information system is given in Table 1.

Table 1. Inventory for a geographical information system

TYPE	DATA ELEMENTS	FORM	SOURCE	
Geodetic & topographic surveys	Physical features, rivers, land use, settlements, transport links, selected basic community services	Maps; scales 1:1,000,000 1:250,000; 1:50,000; 1:25,000	Office of the Surveyor General	
Cadastral surveys	Physical boundaries; land ownership, by unit areas. Urban information: residences, land use, utility services, etc.	Cadastral map ranging in scales from 1:5,000 to 1:500	Office of the Surveyor General; State surveys; town planning department.	
Natural resources	Geological information: mineral, forest water; land use. Geophysical information.	Maps: qualitative and quantitative information.	Geological Survey. Forest Office. Soil, land use, water bureaux.	

Climatic data	Temperature; rain fall; atmospheric pressure; cloud cover, etc.	Tabulated values at specific places	Meteorology offices	
Thematic maps	Development information in analytical maps	Scale: 1: 1,000,000-2,000,000	National map authority	
Remote sensing maps, satellite imagery and aerial photography	Updating natural resources inventory; monitoring changes in land use, vegetation cover and their environmental impact	Black & white products; false colour composites; paper prints	Remote sensing agencies; aerial photo centres	

Planning phases and information requirements

Development planning and plan implementation, management and monitoring are continuous activities that take place at national, sub-national, local, community and village levels. The strategies of plan formulation and implementation, the pros and cons of centralized and decentralized planning and the experiences of different countries in this regard constitute a growing body of documentation. the type of data and information provided and how they are provided to support development planning may be influenced by the planning methodology and strategy adopted at a specific level in a specific country. Here, we shall consider only the indicators and factors about which data and information are required in practically all types and levels of decentralized planning. The presentation here is based on an elaborate paper by K.V. Sundaram entitled Data and Information Needs for Sub-national Planning (1985).

Data and information needs vary according to the stage in the planning, the phase of the plan and the development activity as indicated in Table 2.

Table 2. Planning phases and data and information needs

Planning stage	Planning phase	Information requirements

Pre-planning (Diagnosis)	a) Inventory phase b) Formulation of development strategy and definition of targets	Broad magnitudes and aggregates relating to the state of the sub-national and local economy; natural and human resources data; other socio-economic information.
Planning (Prognosis & programmes)	c) Prognostication phase (changes in the present situation for various sectors - forecasts or anticipated developments d) Programme/Project identification/appraisal/ formulation phase.	Policy changes envisaged; information on factors that promote or retard development. Detailed project-specific, scientific and technical information including costs and benefits.
Implementation planning	e) Monitoring/Evaluation Control phase	Constraints and problems encountered during implementation; impact of projects/programmes.

The UN Centre for Regional Development (Nagoya), based ont he regional (sub-national) planning exercises conducted in Indonesia Pakistan and Philippines, identified seven planning steps:

1. Diagnosis

2. Macro-framework building

3. Sectoral planning

4. Inter-sectoral co-ordination

5. Plan finalization

6. Action programme co=ordination, and

7. Planning for implementation.

Data required to support activities in these steps are categorized into five sets:

1. Regional physical profile

    2.   Regional economic profile

3. Regional socio-political profile

4. Data set relating to inter-regional relationships, and

5. Data requirements for sectors falling within the purview of the region.

Following is an illustrative list of the data sets pertaining to the pre-planning stage:

1. Regional physical profile

1.1 Geographical location

1.2 Delimitation boundaries, area, etc.

1.3 Physical characteristics

       -morphology

       -climate

       -hydrography

       -vegetation

       -fauna

1.4 Natural resources

1.5 Human resources

1.6 Infrastructure resources

2. Regional economic profile

2.1 Working force characteristics

2.2 Unemployment levels and characteristics

2.3 Sectoral structure of economic activities

-regional gross domestic product by sector

-productivity of labour and capital by sector

-installed capacity and idle capacity by sector

-regional exports and imports

2.4 Income level and distribution

-per capital income

-functional distribution of income

-income 'generated' and income 'received' by the region

-savings

2.5 Characteristics of operational units in the primary and secondary sectors

-number and characteristics of agricultural holdings

-number and characteristics of mining undertakings

-number and characteristics of industrial establishments

3. Regional socio-political profile

3.1 Administrative structure
3.2 Level of people's participation
3.3 Level of social services and amenities

-Education

-health

-housing

-service centres and their service areas

4. Data sets relating to inter-regional relationships

       -structure of inter-regional migration

       -structure of inter-regional trade

       -structure of inter-regional communications and transport

       -inter-regional financial flows

5. Data on specific sectors/problem areas

Details to be drawn up keeping in view the particular thrusts proposed in the regional/sub-national plan.

As mentioned earlier, in local level planning the emphasis is on the micro rather than the macro aspects of development and refers to a spatially defined area composed of a number of urban and rural settlements. Here again, although the concept may vary from one country to another, some typical broad analytical steps and related data needs with reference to a specific area can be identified:

Step A: Data collection and analysis of present conditions

Step B: Projection of future conditions

Step C: Formulation of policies/strategies

Step D: Preparation of action plans/projects.

Table 3. Analytical steps and data and information requirements

Analytical category	Information required on

External conditions and factors	1) Exogenous policies/programmes that have an impact on the local area 2) Level of development 3) Spatial relations: adjoining regions and country as a whole
Characteristics of the local areas	1) Natural resources: land, water, forests, minerals 2) Human resources 3) Social and institutional structure 4) Delivery system for economic and social services 5) Infrastructure and facilities for productive activities.
Activity patterns	1) Aggregate patterns of mobilization of resources - land, labour, capital 2) Manner of combination and utilization of resources, inputs and services for productive purposes at various stages of different production processes 3) Manner of provision of economic and social services by government organizations at the local level 4) Manner of organization and execution of collective activities for economic and social development by village community organizations 5) Life-style and ritual activities of local population.
Outputs and achievements	1) Output from productive activities with respect to quantum of production, income generated, productivity per unit of land, labour and capital 2) Qualitative & quantitative achievements in the delivery of economic and social services, e.g. school enrollment ratio, number of farmers covered by agricultural extension services 3) Quantity of services made use of by local population.

	1) Levels of living of local population
Impact of development activities	2) Levels of surplus income made available for future investment
	3) Motivations and aspirations of local population for future development.

Table 4. Broad objectives and corresponding functions for community development planning

Broad objectives	Functions
Alleviation of rural poverty.	Employment generation, income augmentation, and assets creation
Satisfaction of basic human needs.	Provision of primary health care, family planning services, functional and elementary education facilities
Protection and enhancement of physical environment.	Improvement of human settlements; spatial conservation; irrigation and flood control measures; reforestation and afforestation

Participation of community, cultural enlightenment and promotion of new social and political values.	Formation of village fora, women's groups, cooperatives of landless households, etc.

Data and information required to support community development planning and actions may be categorized as:

- Geographical / environment information

- Population and demographic data

- Socio-economic information.

Such data and information are collected through surveys, census operations, etc. The information schedules will be:

- Village schedule or community profile

- Schedule for the survey of village establishments and institutions

- Household survey schedule

- Checklist of economic indicators

- Village map.

Information about the community will usually consist of:

- General information (village area, population, households, literacy, etc.)

- Special problems of the villages

-Agricultural land use pattern, inputs and practices

-Livestock information

-Fisheries information

-Cottage industries information

-Trade information

-Information on community facilities

Household level information may comprise of:

-About members of the household

-Employment

-Housing conditions and related amenities

-Assets (land, livestock, poultry, equipment, etc.)

-Consumer expenditure pattern.

Socio-economic indicators at village level (FAO) are:

-Real term indicators, e.g. yield per acre

-Indicators in monetary or value terms, e.g. per capita income, consumption

-Indicators synthesizing real term and monetary indicators, e.g. employment, income distribution in the village.

Socio-economic indicators for community level planning (FAO) are:-

1. Agricultural cultivated/harvested land

2. Agricultural area improved by drainage, irrigation, terracing, etc. as a percentage of agricultural land

3. Production and yield rates of crops

4. Intensity of cropping

5. Number of livestock species and/or units per economically active person in agriculture

6. Institutional and non-institutional credit per household

7. Percentage of economically active population in agriculture

8. Percentage of active population engaged in nonagricultural activities

9. Percentage of areas covered by size groups of agricultural holding/holders

10. Agricultural labourers as percentage of population economically active in agriculture

11. Average wage rate of agricultural labourer

12. Percentage of community heads of household without land

13. Percentage of households who own their house (and sites)

14. Percentage of households in dwellings in good condition

15. Percentage of households with specified facilities, e.g. piped water, electricity and sanitation facilities

16. Primary school enrollment rates (ratio)

17. Primary school attendance rates (ratio)

18. Total and adult literary rates

19. Percentage of adult rural population participating in design, monitoring and evaluation of agricultural and rural development programmes.

The current trend in urban planning in a number of developing countries requires integrated, functional, socio-economic, infrastructure physical planning information and data. In addition to physical planning, urban planning in developing countries has to deal with such problems as urban poverty, urban migrants, urban unemployed, the urban homeless, the informal sector, basic infrastructure needs, energy conservation, environmental protection, public sector housing, quality of life, etc. The following is an illustrative information profile for urban planning

(Nijkamp):

ECONOMIC - production, investments, labour market, consumption, etc.

HOUSING - quality & number of dwellings, residential climate, prices and rents, etc.

INFRASTRUCTURE - accessibility (public and private transport, distances, mobility (migration, recreation, etc.)

FINANCE - taxes, subsidies, public expenditures, distributional aspects, etc.

FACILITIES -health care, cultural, recreational, social, etc.

ENVIRONMENT -air pollution, noise level, sewage system, congestion, density, etc.

ENERGY -energy consumption, insulation of dwellings, central urban heating system, tariff systems, etc.

As pointed out at the Kawasaki International Seminar, identifying the data and information needs of decentralized planning is one aspect of designing information support system; other logical and strategic and operational requirements should also be taken into account with a view to maximizing the use and application of the information system. The latter requirements are summarized below.

Logical requirements:

-consistency with other data

-comparability of data with other levels

-measurability (e.g. individual nominal data and aggregate metric data)

-validity (e.g. statistical robustness)

Operational requirements:

-availability at the right time for the right group

-usability without additional complex operations and interpretations

-completeness, representing a balance between shortage and over-abundance of information

-multiformity, dealing with various relevant planning data.

Strategic requirements:

-relevance, representing the most important policy objectives and measures of the problem on hand

-flexibility, such that the system can easily be adjusted to new policy interests or new circumstances

-comprehensiveness, enabling the simultaneous judgement of different sectoral policies simultaneously

-effectiveness, so that the impacts of policy measures can be judged and evaluated (before and after)

-level of decentralization.

Other Data Banks

The information system to support development planning and plan implementation will require

additional information and data covering a wide range of subjects supplementing those mentioned in the preceding sections. Subjects to be covered include:

-Science and technology

-Socio-economic data

-Law and legislation

-Natural resources

-Industry

-Agriculture

-Social welfare areas, etc.

The systems may be further categorized as follows:

1. Reference systems

    1.1 Bibliographical systems

    1.2 Referral systems

2. Factual information systems

    2.1 Numerical/statistical systems

    2.2 Qualitative information

3. Full text services

The Reference Systems direct the user to other sources of information and data needed. Thus, a bibliographical system provides reference to or cites relevant documents, some with an abstract of the document cited, rather than provide full text of the documents. Secondary periodicals and data bases of these in various subject fields (e.g. Agris. Sociology Abstracts, and outputs of regional development information networks, such as, PADIS (the Pan African Development Information System, DEVINSA (the Development Information System for South Asia). Similarly, a referral database may consist of profiles of institutions, experts, or ongoing projects in selected fields; the user is directed to consult with appropriate institutions, experts or projects for further information on the topic or problem in question. A factual information system may be

developed using the data and information collected through statistical censuses, surveys, etc., and the user can retrieve the factual data or information itself rather than just a reference to another information source. The data and information contained in such data bases can be further processed and displayed in the form of graph, map, correlation table, etc.

Information Systems for Science and Technology

Bibliographical services and data bases have been developed in science and technology fields for several decades now and are extensively used by researchers and research managers. Several of the data bases are accessible through on-line services, such as, DIALOG, PASCAL, ESRIN, SDC, BRS. Some services cover specialized fields, e.g. MEDLARS/MEDLINE for the medical and health sciences, AGRIS for the agricultural sciences and technology, etc. Information systems on patents and trademarks, such as, the data bank of WIPO (world Intellectual Property Organization), on standards of ISO (International Standards Organization) are useful for industries. There are also specialized services and data bases on research institutions and on research projects in progress. There is also a growing number of numerical and statistical data bases in science and technology areas; and data bases/information services covering specific countries and/or regions. Some sources of information on data bases and information services are listed in the annex to this chapter.

Socio-economic data

Socio-economic data, largely used in national and sectoral development planning, execution, management and monitoring of the related projects and programmes, are derived mainly from statistical surveys (population, households, industries, other economic factors, etc.) National and sectoral censuses, usually undertaken at regular intervals, provide an overall picture of the country's population, family structures, employment and unemployment, housing etc., and together with statistical surveys constitute the basis for national plans, preparation of time series, short -and long-term forecasts for which sophisticated modelling techniques may be used.

Laws, Regulations and Legislative Measures

Legal information systems and services are intended to assist

-legislators and those who frame laws to ensure harmonization of the new laws with the existing ones; and

-economic and social agents, who need to know the laws and regulations applicable to their respective areas of concern. These include interpretations of the laws and judicial and court decisions.

Legal information systems cover civil law, company law, laws relating to taxation, labour, customs, commerce and trade, etc. It is obviously necessary, in these cases, for the system to cover relevant laws and regulations of other countries and also international regulatory measures.

Information for industrial development

In many developing countries there are public sector undertakings supported by national and state governments; and national development planning covers industrial development in the public and private sector. Planning and development of industrial infrastructure requires a variety of data and information on the existing infrastructure, industrial production, import and export of finished good and raw materials, domestic and foreign markets, industrial licensing company profiles, industrial financing, investments, etc. There are a number of on-line data bases that contain such information for some of the industrialized countries. Feasibility studies and reports prepared by or for international and regional organizations supporting industrial development are important sources of information and data.

Information for Agricultural Development

In almost all developing countries where over 75 per cent of the work force is engaged in agricultural production, planning of this sector is of vital importance. The collection and provision of timely, relevant and reliable data bout this traditional sector is relatively more difficult than the industrial sector.

Information and data on seeds, crops, water resources, irrigation facilities, soil condition, pests and pest control, fertilizer distribution, post-harvest technology, livestock, agricultural financing, cooperatives and marketing, land holdings, etc., are to be collected, processed and made available to planners, project managers, extension agents, and appropriately interpreted for the farmers. The latter need frequently weather forecast data for practical planning and organization of agriculture-related activities. International data bases and services, such as, AGRIS of FAO, the Commonwealth Agricultural Bureau, and Agricola (USA) are widely used bibliographical services. Some of these are now available on compact disc (CD/ROM). There are also regional data bases in this field. Also, information and data are collected in an increasing measure through aerial photography, remote sensing, and similar techniques on land structure, cultivation patterns, water resources, cropping patter, crop damage, harvest forecast, livestock, etc. Geographical information systems on microcomputers are also being implemented in some developing countries. Information on Natural Resources.

The optimal use and management of the natural resources of a country are important in the planned development of the country and in ensuring that development does not lead to imbalances or contribute to the deterioration or destruction of these valuable resources. The type and content of information system supporting natural resources management will depend on the

country and its development priorities. Nevertheless, information systems relating to natural resources generally cover:

-plant and animal life and products thereof

-forests and forest products

-underground resources: minerals, deposits of gas, oil, etc.

-water resources

-geological configuration of the country

-monitoring of pollution, deforestation, etc.

Aerial photography and remote sensing techniques are used for collecting data and computers for processing and imaging of the data while geo-coded/spatial information techniques are finding wider applications in this area as well..

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Extract 2 - Formulation and implementation of a National Information Policy (NIP) in the context of an African environment: Issues and Strategies

-Maurice C. Lundu

This chapter attempts to discuss, in broad terms, the concept of a national information policy. The issues and strategies outlined in the paper are indeed of general application. However, Zambia's experience so far has been taken as a test case. The argument that runs throughout the discussion is that there are no universal guidelines that may be applicable in every situation and circumstances. It is, therefore, important to relate my concept, theory, principle, etc. to the problems at hand. This is the principal message coming out of this discussion.

The discussion begins with a poignant observation made a few years ago by a Canadian University Librarian who stated:

> "I take as my starting point my belief that, most if not all, fundamental policy decisions about the advances of library movement and the evolution of libraries are made outside the library, they inevitably require some form of external approbation. It is essential that we are not legislators. We are not the consumers. We are servants" (MacDonald, 1987).

Most information professionals born and bred within the African environment will certainly agree with this very pertinent admission. Our experience tells us that political structure and policies are the driving force behind any socio-economic, scientific and technology development. Presently, there are not many African information experts constituting a political force to reckon with. While, discussing the formulation of a national information policy in the African context, one has to contend with the impact of political systems on the whole process of information-communication, principally so if one accepts the view that information is indeed a national resource whose production, acquisition, management, dissemination and utilisation must be planned and coordinated at the highest level of government machinery. It is in this context that I see political ideologies in Africa playing a critical role in the formulation of a national information policy.

In the pages that follow, an attempt is made to outline and examine issues and strategies that may have a bearing on the formulation of a national information policy with special reference to Zambia a country that I am familiar with.

Conceptual definition of public policy

The word 'policy' means many things to many people depending upon the circumstances. Hence, the greater need to define the concept in which it is being used here.

For the purpose of this discussion, I shall take the meaning of the word as given by the Oxford Advanced Learner's Dictionary of Current English by A.S. Hornby. The dictionary's definition of the word is an follows:

"plan of action, statement of aims and ideals, especially one made by a government, political party, business company, etc." (Hornby, 1974)

In other words, public policy sets guidelines and parameters within which certain activities should operate to achieve stated goals and objectives. The dictionary's reference to 'government, political party, etc' particularly relevant in the context of this paper because as MacDonald observed earlier, the political party or the government appears to be the main architect of any public policy formulation and is the power behind its implementation. This applies to any policy, be it sectoral, national or international. The discussion on the formulation of a national information policy in this paper will be dictated by this very important understanding, always bearing in mind the factors outlined below:

-Information policy formulation is a recent phenomenon in information science.

-Information of any variety has only recently been accepted as a national resource that is susceptible to study using techniques that have been developed and applied to other areas of human endeavour.

-The current information systems at both local, national and regional level are really a collection of uncoordinated and independent entities that loosely link information producers to users. There is, in fact, no overall system in the usual sense in which the term is used. (King & Zaltman, 1979).

-Individuals and organisations are simultaneously producers and consumers of information.

-The value of information is in its utilisation.

-My own assessment of the national information infrastructure particularly in an African environment is one of non-innovative, fragmented and certainly under-utilised resource.

-Thinking of information as a product that must be designed, developed, packaged and even promoted on the basis of identified user needs is a new concept that appears to be gaining momentum with the application of information technology to its processing and management.

In my opinion, these seven factors, although not exhaustive, will probably militate against any attempts to formulate a national information policy in an African country unless steps are taken to change the thinking, attitude and orientation of decision and policy makers, legislators and consumers of information; researchers in public and private institutions, economic and political advisers, students and ordinary citizens particularly peasants in rural areas.

Changing the thinking and traditional patterns of behaviour among human beings is the most difficult task an information professional is likely to face anywhere in the world. And because information professionals are outside centres of political power where policies and decisions are made, it becomes even more difficult to influence trends in information policy formulation at all levels particularly so if the information profession is dominated by traditional librarians. I strongly believe that information experts in Africa should seize the opportunities offered by information policies to work toward the realisation of developing information services and products that would benefit the majority of the African people. In order to achieve this, there is need to try to apply policy formulation theory and practice, as evolved in other subject fields, to the development of information services as systems appropriate to the African situation.

National information policy

Nations promulgate many public policies. These are policies related to national security; policies concerned with the nation's relations with other nations (foreign affairs policies); policies to do with the political, social, economic, cultural, scientific and technological development of a country both at sectoral and national level. A national information policy must be seen in the context of being one of so many public policies that a national government must be concerned with. But why should a government, particularly in a developing country, take a keen interest in

the development of information systems in the country? What is so special about information at this moment in time which should attract particular attention by policy-makers at the highest level of government machinery? The answer, in our view, lies in how one understands to be unique attributes of information.

For the purpose of our discussion, we turn to the definition of information as given by one o the Pan African Documentation and Information System (PADIS) study. In a paper presented at the Seminar on National Information and Informatics Policies in Africa held in Addis Ababa, Ethiopia, November 28 to December 1, 1988, there is a reference to what constitutes development information. This definition is by no means a classical one, but it is one that comes closes to what information is in a practical sense and certainly in the context of a developing country in Africa. The document's definition of information reads:

"Information is intelligence or knowledge that contributes to the social, economic, cultural and political well-being of society irrespective of the form it is encrypted in (text, figures, diagrams, etc.); irrespective of the medium it is stored in (paper, magnetic, etc.); irrespective of the mode of dissemination (oral, written or audio-visual, etc.) and the social activity that gave rise to it (research, administration, censuses, remote sensing, etc.) and the institutions that organise and disseminate it (libraries, documentation centres, archives, statistical office, mapping agencies, geological survey, computer centres, media and broadcasting services, telecommunication services)" (PADIS, 1988).

In my view, information policy must of necessity stem from what one conceptualises information to be. Because of this, there is indeed no consensus on the universally acceptable definition of information. This is understood in a variety of ways depending upon a number of factors. It is with this problem at the back of my mind that, for this discussion, I entirely agree with the observations made by the PADIS paper referred to above when it states:

> "If one used this definition of information as the basis for mapping out the national information activity, then all the following functions or parts there of will qualify as information functions: research, statistics, media and broadcasting, entertainment, telecommunications, publishing, etc - just to mention a few. By extension, the national information policy is to regulate activities within and across all these functions."

The paper continues, this time with specific reference to a national information policy formulation, which it claims to

-discreet processes in the information activity continue i.e. generation, collection, distribution, etc.

-the objects of these processes with heavy emphasis on published textual information carried on paper media, and

-the means to improve service with regard to the above i.e. manpower, financing, institutions, coordination, etc. "(PADIS, 1988).

There are two good reasons why this paper has gone to such great length in quoting the PADIS document. Firstly, emphasis is on the complex nature of what constitutes information and by extension how difficult it is for one group of information workers (e.g. librarians, computer experts, archivists, etc.) to claim to be the only genuine representative of an information profession. As I observed in another paper:

"In our profession, the absence of a consensus of what constitutes information has given rise to a proliferation of sub professions each claiming to be the genuine representative of an information profession. For example, nowadays we can identify the following organisations and bodies as being in the information business: IFLA, FID, American Society for Information Science, ASLIB, PADIS, Computer Societies, Info-Technology Societies and Associations, etc." (Lundu, 1988)

As far as I am concerned, I have no quarrel with such a plethora of information groups as long as each group accepts the fact that the others are also concerned with some aspect of information handling, processing and management. Secondly, because the definition of information according to the PADIS document quoted earlier is so broad, the question of making development of information services and systems a national issue is indeed indisputable. What perhaps may be a contestable issue is how to go about mapping out the national information policy to cater for every sector of national development in a particular country and what emphasis should be given to each information function and activity, the form in which information is encrypted and the mode in which it is disseminated to users. However, one thing is clear, a national information policy should be broad enough as to address all issues pertaining to a coordinated development of information services and systems in order to meet all identified requirements so as to promote the effective utilisation of information resources and products in national development. This, I believe, is the major goal or objective of any public policy. Most certainly, the national information policy as understood in our context is no exception. More about this later. Meanwhile, we turn to briefly discuss what is assumed to be the difference between library policy and information policy.

Library policy vs. information policy

Quite obviously, the assumed difference between Library Policy and Information Policy stems from the broad definition of information as used in this paper. The PADIS allusion to the "customary" reference to national information policy does succinctly bring out the major problem associated with the debate at hand. We are talking here of the fact that the traditional understanding of information activities relate very much to the age-long processes connected with generation, collection, distribution, dissemination and utilisation of information. Heavy emphasis has been, until very recently, on published and textual form of information carriers such as printed media. This, in a sense, is a very narrow way of dealing with information as a national resource. It is in this context that one finds libraries as institutions that organise and disseminate information predominant particularly on the African continent. Historically, libraries as organised means of communicating human knowledge and experience were established long before any other institutions of transmitting information such as postal services, telephones, telegrams, audiovisual, computers, telecommunications and very recently telematics were introduced in society all over the world. In short, libraries have been with human civilisation ever since the invention of writing as a form of transmitting knowledge from generation to generation became part of human culture. Hence, libraries in the traditional definition of the institution has become a universal phenomenon except perhaps among the Bushmen in the Kalahari Desert and nomads of the Sahara Desert and East Africa. But where permanent human settlements are found, there libraries will be though not perhaps in the customary sense that most of us understand the word to be. And of course, libraries put greater emphasis on documentary information i.e. information generated, collected, stored, distributed and utilised in published and unpublished literature. There in lies the narrow conceptualisation of libraries as institutions charged with the responsibility to organise and disseminate information contained in printed media. A library policy by definition is concerned with the development, organisation, management and coordination of libraries as institutions of information resources prominently produced, stored, distributed and disseminated through the use of paper media. This, in my opinion, as only one component of what should constitute a national information policy and activity. But it is admittedly an important component that a broad national information policy should address itself to very critically.

On the other hand, an information policy embrace all aspects mentioned in the definition of development information given earlier. Such a policy addresses all issues relating to the development of all types of information services and institutions (including libraries) in the country. It should identify the requirements of information resources and should endeavour to provide guidelines and principles upon which plans and strategies for the promotion of information utilisation should be based. It is such a policy that should motivate and guide an integrated approach of the establishment and coordination of all types of information systems and institutions in support of national development programs. A national information policy should indeed be integrated into the totality of national development .policies, plans and programs at institutional, sectoral and national level.

In the context of an information policy, one has to include the role that information technology (IT) is playing in the area of information processing, handling and management. As the 1988 Gale Research Catalogue makes it clear on its first page, most companies dealing with information resources are now providing "valuable information in a variety of formats, print, electronic, and CD-ROM. These new information products and new formats are meant to better serve your information needs". The major impact of an information policy is to determine just how a country, institution or even an individual in society should apply this variety of

information products and new formats to the harnessing and harmonisation of information as a national resource in support of national development efforts. How can information systems as libraries, archives, database, telecommunications and computers, documentation centres, etc. be organised and coordinated to best respond to the needs of society in a particular environment at a specific time? My opinion is that there is too much emphasis (particularly in developing countries) on printed and documentary information because of the preponderance of print-based media for the exchange of information within the modern sector in Africa to-day. A NIP must embrace all kinds of sectoral and national policy areas such as: economic policies, education, technology, cultural and even research policies. We shall return to the examination of this point in more details when we tackle the Zambian environment as an example. Meanwhile, perhaps a brief discussion on the basic goals of any information policy is appropriate at this juncture.

Basic goals of information policy

In addition to some of the major goals of national information policy previously identified in this paper (e.g. ensuring a coordinated development of information services, promotion of effective utilisation of information resources and products for national development, motivating and guiding an integrated approach to information activities at institutional and sectoral level), there are, in my view, other very important basic goals of any information policy that should be mentioned here. MacDonald, quoted at the start of this presentation provides these basic goals:

-to protect the existing service and resource

        base;

-to enhance the service and resource base;

-to change services, methodologies, opportunities and circumstances and required in order to increase our effectiveness and our efficiency (MacDonald, 1987:43).

These, in my view, are very important goals that we should strive to achieve as information professionals. In fact, these goals are so significant in our desire to plan and coordinate an effective evolution of any information system that a brief analysis of each goal is appropriate.

-To protect the existing service and resource base

In the context of the definition of information given earlier, I have no doubt that, like air and water, information is everywhere. Again, like air and water, there is contaminated information that comes out after it has gone through some kind of digestive or respiratory system. This information could be either useful or harmful to us, just like carbon dioxide that we breathe out

could either be useful or harmful. Indeed, the ubiquitous nature of information amongst us is very well recognised. That is why the world is getting involved in harnessing this ever present commodity for the benefit of all humanity. And as information experts, information is our resource base. Even in developing countries, information is there in abundance. And as we all know, communication and exchange of information has kept traditional African societies together as they struggle to same nature. Therefore, it is critically crucial that the information policy so formulated recognises the existence of this service and its resource base although brought into our midst by some foreign culture and political ideology. It would be extremely dangerous to ignore this point in our attempts to develop different information systems just for the sake of being unique. That is why it is practically important to understand just what an information policy is meant to do in each particular situation.

-To enhance the service and resource base

The second goal is to enhance the service and resource base. In my view, information policy formulation must emphasise the development of information services in such a way that it enhances it response to national needs. National context rather than piecemeal provision of information should be encouraged at all cost. Policy analysis and implementation should be in relation to fundamental national aspirations. Without linking the information processing and management to national development priorities, I submit, there would be no justification for formulating any information policy. I believe that unless the benefits of accessibility and utilisation of information are brought to the people (especially the rural peasants), scepticism and disillusionment will hinder further progress in the development of information systems and centres. Where information is organised in such a way as to serve a tiny section of the nation's population, there is certainly a danger tha the potential of information as a national resources would not be realised. This will definitely make it impossible for the information policy to enhance information service and increase its resource base especially in a situation where financial resources are so sharply in short supply (Manasinghe, 1987).

- To change services, methodologies, opportunities and circumstances as required in order to increase our effectiveness and efficiency

I now turn to what I consider to be the most important basic goal of an information policy. There is no denying that changing services, methodologies, opportunities and circumstances as required in order to increase our effectiveness and our efficiency holds the key to hoe information services, systems and centres created or established in the context of a national information policy will increase its contribution to development efforts. Recognition of the fact that change is the only constant in this world means that even information systems and centres must change in order to constantly meet the changing needs of each environment through time and space. We all know how difficult it has become for one to keep abreast with trends in science and technology, social attitudes and fashions. These changes have a tremendous influence on how information is generated, produced, acquired, processed and managed, disseminated and utilised by African countries. As observed by many experts in a variety of fields, there is a greater need today for African nations to plan and coordinate information production, processing, management, acquisition, dissemination and utilisation than ever before because of the multitude of problems

to be solved through communication such as computer technology, printed media, non-print or oral forms of communication, one is engaged in the analysis and identification of different means of using information as a national resource capable of being exploited both for personal gains and the good of society. Information forms a major base upon which the growth of knowledge so much depends.

My own philosophical approach to the analysis of information issues is that there is much to gain by the application of information technology to most aspects of information work. It is this very reason that I usually welcome the interaction between traditional librarians, documentalists and archivists on one hand centres that will not be a mere replica of what industrialised nations have developed. It is in this context that I strongly endorse what IDRC's Information Sciences Division is trying to do in order to develop information systems, networks and services suitable for the African environment. In its document entitled

"Information for development: strategy for sub-Saharan Africa" the International Development Research Centre, Canada appears to be advocating a strategy that identifies priority areas to be addressed by any information policy in this part of the world. To emphasise the point, the salient aspects raised by this strategy are re-produced here, but always remembering that the strategy may not necessarily be appropriate in every country situation. These aspects are:

1   The rationale has been that the financial and human resources in Africa and among donor agencies such as IDRC are limited and could most effectively be used with an explicit framework of objectives and programs consistent with sub-Saharan Africa's own priorities and existing infrastructures for research and information.

2   The strategy provides means for selection among projects that are inherently valuable, it supplies criteria against which existing and completed projects can be evaluated, and it opens the way for the Division to redress inequities - geographic and economic - in its support.

3   ... There was a risk of directing not only the Division's but also the regions' resources toward goals of a few researchers and their organisations rather than towards overall aims of the region. The approach was also less than appropriate if judged according to the published objectives of IDRC to contribute toward structures that benefit the poorest of the poor. Also the diffusion of information on research and development linked to national and regional policies provides a better focus for the long term than unco-ordinated sectoral concentrations.

4.   The major objectives of the strategy for Africa are to encourage sharing of information locally, nationally and regionally; to support information systems that address local problems; to promote standards and compatibility among national and regional information systems; to improve the capacity among African nationals to plan and implement information and information policies; to increase the use of local experts in information handling; to ensure the sustainability of information initiatives; to build human resources in information science (specifically to impart skills in managing information systems, in acting as agents of change, and soliciting and sharing knowledge produced within sub-Saharan Africa); to promote participation

by poor people, and to improve access of local development researchers, decision-makers and practitioners to relevant information.

5.   Key among the spheres of action and probably most difficult for effective interventions by donors like IDRC - is capturing, repackaging, and delivering information produced locally be farmers and other primary producers, scientists, government officials, merchants and health workers and other service personnel. At present, because of the shortage of networks, personnel, and facilities devoted to recording and redistributing what is known locally, much of the knowledge is disregarded or lost as are the opportunities for South - South sharing of relevant findings.

6.   Imaginative suggestions are needed on how to use all types of media oral, written and audiovisual forms - to disseminate information on health, sanitation, and farming methods, where possible, the Division will support indigenous publishing programs, studies on the presentation and marketing of information for specific users, and development of information systems that cater to local communities and government handling of information by and for indigenous groups (Graham, 1988).

This strategy, in my opinion, brings out what I take to be the most practical steps undertaken by a foreign donor agency in order to support efforts being made by national governments in this region in their desire to identify their own needs and priorities. It is now the established thinking that in planning for the development of appropriate information services, there is a great need for African societies to identify their own needs and priorities. The view is that such needs and priorities should not be imposed on African societies. The IDRC's Information Sciences Division presents a challenge to information professionals, African administrators, researchers and policy-makers in our search to evolve information policies capable of tackling African Development problems that are unique to African situation.

Formulation vs. implementation of policy

The observation made by MacDonald quoted at the beginning of this paper is extremely pertinent to the discussion on the importance of the difference between policy formulation and policy

implementation. An attempt is made to suggest why.

As MacDonald rightly observes, fundamental policy decision of any sort in most cases are made by a political party in countries where party politics play dominant roles (e.g. most one-party states on the African continent); while in Western European-type democracies, it is the Government that determines public policy. Of course, neither the Party nor the Government does single-handedly undertake such a task without due to consultations with other actors in various sectors-: public, private and para-statal organisations. In the process of policy formulation, the Party or the Government must consider inputs given by a multitude of experts and groups in society.

We have earlier pointed out that public policy presents basic principles or assumptions on which a program of action is based. The term "policy is used to refer to general plan of action. It can also be used to refer to plans and strategies" (Zwangobani, 1988) .

In our view, this type of policy can only be promulgated by a body with a mandate from the people themselves because it is through that kind of body that a country's aspirations can be enunciated. This is one of the basic differences between policy formulation and policy implementation.

The other major difference to be noted in our discussion is that the policy so formulated must create the machinery through which its implementation could be achieved. We have in mind legislative support, the creation of appropriate institutions, financial commitment, and the training of supporting human resources to undertake the development programs identified in the policy itself. In our case, and information policy must be formulated by either the Party or the Government and its implementation be left in the hands of information professionals at institutional, sectoral and even national level. This is what should be. After a policy has been formulated by a Party, Government or Board of Directors (in the case of business conglomerates), there should be less interference from above during the policy implementation process. One expects that once a policy has been formulated, its implications on human, financial and physical resources are clearly understood and basically bindings on all those concerned. Inevitably, there must be constant review and monitoring of the policy during the implementation stage. This observation means that before the policy is formulated and adopted, there must be a though study and analysis of, firstly, the existing infrastructure to determine the gaps and, secondly, a clear projection of what the policy is meant to achieve before it is revised. That is why it is critically imperative to relate policy formulation to the present and future needs of society or country. By an large, policy implementation will have to follow guidelines or strategies spelt out in the policy itself. A national information policy formulation and implementation in any country must be understood and interpreted in this context. This is what I shall attempt to do with regard to the prevailing geo-political, socio-economic, technological and other conditions in Zambia.

National Information Policy formulation in Zambia

The major trust of this part of my discussion is to attempt to interpret or translate the general information policy principles as conceptualised in this paper into practical terms with special reference to the situation currently obtaining in Zambia. My actual experience with the Zambian environment qualifies me to undertake such a task. However, I am quite aware of my limitations in this endeavour particularly in the sense that information as a concept is subject to different interpretations. This, I have already admitted, is major constraint. It is with this particular understanding that I have to concede that the appropriateness of my guidelines, theory, concept, definition, etc. is very subjective.

"There is indeed no universally acceptable definition of the concept of information. It is the eyes of the beholder" as Allen Kent aptly states (Kent, 1974).

In our case, the 'beholder' happens to be the writer of this chapter and the appropriateness of the national information policy formulation and implementation must be defined by the socio-economic, geo-political, scientific and technological conditions currently obtaining in Zambia. Furthermore, Zambia's own future national aspirations must play an important role in determining just how a national information policy so formulated should be implemented to achieve optimum benefits for society as a whole. We shall now examine each of the current conditions mentioned and see how they are likely to influence the process of national information policy formulation and implementation: geo-political, socio-economic, technological, legislative machinery and strategies involved in policy-formulation and implementation.

-Zambia: geo-political

Zambia is a large land-locked country in the heart of what is commonly referred to as "Eastern, Central and Southern African Region." It has an area of 752,614sq km (290,587sqm^2). Her dependence upon other countries in terms of external (and even internal, e.g. the Zaire pedicle road from the Copperbelt to Luapula and Northern Provinces) transportation and communication is indeed a peculiar feature of Zambia's geo-political position. Because of the past historical colonial activities and influence, some of Zambia's neighbouring countries use official languages different from her's (Zambia uses English as her official language). For example, Angola and Mozambique are Portuguese-speaking while Zaire is French-speaking. However, Malawi, Tanzania, Zimbabwe, Botswana and to a large extent South Africa and Namibia are English-speaking neighbours in terms of official communication although both Malwi (Cichewa) and Tanzania (Swahili) use vernacular languages as national languages for similar purpose.

Furthermore, Zambia has been under constant pressure from white dominated South African regime just like other independent black ruled African states in the region have been. And until 1980, she was always harassed intermittently by the then illegal regime of Ian Smith south of the Zambezi since 1965. Because Zambia is land-locked, communication with the outside world has to be dictated by the political and economic stance taken by her neighbours. This is well

illustrated by what happened in 1973 when she had to close her main rail line through Zimbabwe (then Rhodesia) because that country took an unfriendly attitude towards her.

Since 1975, her exports through Angola have had to be halted due to the activities of UNITA Guerrillas who have made the rail line to the Port of Lobito in Angola virtually unusable.

These are obviously some of the geopolitical constraints, at regional and international level, that Zambia has to contend with in all her development policies and strategies (including the national information policy and strategy). There is no doubt that these constraints are real and do have some impact on information transfer and the development of information services and systems in the country. This is especially true when one considers that almost ninety-ne (99) percent of all reading materials particularly in institutions of higher learning (colleges and the two universities), television programs, telecommunications equipment, computers and audiovisual materials are imported from overseas sources, mainly from Britain, Japan, West Germany, South Africa and United States (Dean, 1980; Kwalo, 1981).

-Zambia: Socio-economic

The 1980 population census in Zambia reveals that certain aspects of Zambia's development structure are basically lopsided. It enumerates the following as needing special mention because they are very relevant to the country's national development plans and general goals. These are:

-There is cultural imbalance between the urban and rural areas

-There is certainly imbalance in the production and distribution of goods between regions within the country

-Demographic imbalance is discernible

-Educational imbalance exists

-Economic development imbalance exists

-Social development imbalance exists

-Scientific and technological development is also lopsided

-Transportation and communication is uneven

-Information processing and dissemination imbalance is also experienced.

Let me stress the point that all these imbalances are more noticeable between rural and urban areas. But we must also agree that these imbalances can be identified among various categories or segments of the population especially os in urban areas where poverty is associated with the least educated segment of population living in 'shanty' compounds surrounding posh residential areas in Lusaka, Kitwe, Ndola, Mufulira, Kabwe, Livingstone, towns along the famous line of rail. With this type of development, one can easily talk of the "two nations" in Zambia - a nation of highly sophisticated and Europeanised educated urban dwellers and a nation of neglected and least changed ural peasants who appear to have gained very little from the fruits of independence. No wonder, the Third National Development Plan (TNDP), 1979-83 is quick to declare:

"...In both these plans as in the formulation of the First National Development Plan 1966-70 (FNDP), the principal objectives were to correct the structural imbalances and lopsided development inherited from colonial days, initiate the process of establishing a broad social and economic infrastructure and diversify the agricultural and industrial base of the economy".

In short, the overall goals of all National development plans since independence up to the Fourth National Development Plan 9FNDP, 1989-1993) launched by President Kaunda on the first day of January, 1989 is to reduce the imbalances identified above.

Understandably so, the Zambian political Party and its Government employs a socialist method of economic and social development and applies the strategy of five-year development plans. So far, there have been three full five-year development plans: 1966-70 (FNDP), 1972 (SNDP), 1979-1983 (TNDP); and two Interim National Development Plans (INDP): 1964-1966 and 1987 - December 1988. 1989 sees the start of the Fourth National Development Plan. All these plans are meant to improve Zambia's economic activities in order to achieve economic independence and enhance welfare of the people. Alas, the resultant real Gross National Domestic Product (GDP), one of the major indicators of the country's economic performance, has never revealed the success of any of these plans. Many reasons to explain this could be advanced, but that will require a long discourse in order to do justice to the issues involved. Suffice to observe, in the words on the Interim National Development Plan (1987-1988):

"A sectoral analysis of the economy during the TNDP shows that the performance of the major sectors of the economy, namely: mining, agriculture, manufacturing, construction, transport and communications was disappointing. The actual growth rates in these sectors fell short of the planned targets".

Indeed, this has been the general experience with almost all national development plans in Zambia so far. And if this trend is a pointer, then it is any body's guess to how successful the Fourth National Development Plan will be in achieving economic independence and enhancing the welfare of the Zambian population that has become so critically vocal with respect to the country's overall economic performance.

All national development plans have well meaning intentions. Despite this, their implementation has been very difficult indeed. Many factors are believed to contribute to this state of affairs. Chief among these has been lack of funds (particularly from local sources) with which to service the plans and projects. In addition, the management of projects so identified in the pans has not been that effective. This has indeed been compounded by shortage of skilled manpower at managerial level, lack of commitment on the part of principal actors in the implementation process, inappropriate adaptation or mis-adaptation of technology from the more advanced countries and more relevant to me as an information expert, difficult access to and improper utilisation of information and data. This has been clearly identified as a problem by the Party itself when it observes:

"Poor data and information flow among implementing units charged with the task of National Economic Management System has made the scientific administration of the economy difficult.

"Most ministries which could have a direct implementation role as arms of the government collect superficial data which as for internal use only."

The report continues:

"The quality of data was poor because it was not scientifically derived and was therefore inadequate for analysis. The National Economic Management System continues to suffer from problems related to the availability of planning data. In addition to the availability of planning data, there is a serious problem of the flow of statistical data among the implementing units" (Zambia Daily Mail, August 22, 1988. p.3).

This observation not only endorses the role of information and data in the planning, policy formulation and implementation process, but also supports the broad definition of information as conceptualised in this paper.

Although this writer has not personally seen and examined the report from which the newspaper extracts this quotation, there is no doubt in my mind that its contents reveal the prevailing state of affairs with regard to information and data availability, management, accessibility and

utilisation by policy makers and planners both within the government structure and private companies. It is this type of situation that encourages me to find out just how much impact a national information policy would have on changing our views towards the importance of information in national development. Perhaps, that needs a separate paper altogether

-Zambia: Technological

In this section, our emphasis is on looking at technology relevant to information processing, management and utilisation. Hence, not much will be said on technology that is applied to agricultural development, mining industry, manufacturing, etc. With this understanding at the back of our mind, the identified aspects of technology to be discussed under this heading include: computer technology, telecommunications and audiovisual technology. In short, this in my view embraces what is commonly refereed to in Information Science jargon - Information Technology (IT). It has obviously a direct impact on how information could be harnessed as a national resource to support the implementation of a national information policy in Zambia. We begin with computer technology.

-Computer Technology

With regard to the state of computer technology in Zambia, this paper relies for its information on the ideas of M. Shitima, Data Processing Manager, Ministry of Finance and once Chairman of the Computer Society of Zambia. He is arguably the most knowledgeable person in as far as the development of computer industry in Zambia is concerned. He has written extensively on the subject. And one of his papers does indeed present the picture as it obtained in 1986. In that paper, Shitima observes:

"Computers have been in use in the Republic of Zambia, in both the private and the public sectors, for well over twenty years. Most of the equipment utilised hitherto has mainly been engaged in serving the accounting departments of these organisations, payroll being one of the most important system" (Shitima, 1986).

In the same paper, Shitima outlines major suppliers of computer equipment such as the IBM, ICL, NCR, WANG, Burroughs, etc. Most of these suppliers have appointed local Zambian agents to market their products and undertake servicing and maintenance functions. Unfortunately, all computer technology and products are imported from abroad which creates a problem of standardisation and in some respects maintenance itself.

In another paper, Shitima laments the fact that it is impossible to provide accurate statistical data on computer products coming into the country because the local vendors do not want to do so for reasons known to themselves and perhaps because the Computer Society of Zambia is not active enough to monitor what is being imported. However, in the last few years, a considerable

number of micro-computers, personal computers and even mainframes have found their way into the country and are being used extensively in government, private and para-statal companies simply because:

"It is evident that despite the adverse economic situation, a reasonable amount of foreign exchange is allocated for the importation of informatics products for both the private and public sectors. Most equipment is in the form of micro and main-computers and peripherals as well as associated hard-ware" (Shitima, 1988)

From Shitima's observations, one gets the impression that importation and utilisation of computer products or technology in Zambia will continue to expand. Because of this trend and the potential that this technology possesses as it applies to information work, it is impossible to overlook its value to the formulation and implementation of a national information policy in Zambia.

-Telecommunication

Though this happens to be the main feature of current communications technology especially in computer network and links within and outside Zambia, Zambia's position in the world is not too good. Her telecommunications infrastructure, though expanding, is still not that well developed and a lot has to be done to improve the quality of both the internal and external telecommunications systems. The first Mwembeshi Earth Satellite was commissioned in 1974 and the second in 1988. This has assisted in improving international telephone services, telex and other telecommunications facilities. However, I am not aware of the introduction, in the country, of telematics and facsimile facilities. Still, plans have been completed to build microwave stations that have enable the government to link urban centres to rural Zambia - this television and radio services have now been provided to all ten provinces of Zambia. This has had the effect of redressing one of the imbalances between urban and rural Zambia as mentioned earlier. Despite this, both television and radio reception remains quite poor. This is unfortunate especially if such services have to be used in the communication of development information to rural areas and literacy campaigns.

-Non-Print Media Technology

Our understanding of non-print media technology includes: audio-visual media such as films, slides, cassettes, film-strips gramophone records, film loops and the hardware used in making these media to work; micro-media like micro-film, micro-fiche, micro-opaque, micro-print, etc. and of course the equipment required.

It is our submission that this type of technology, if properly selected, would form what IT in a broad sense is understood to be particularly in the context of a country like Zambia. I believe this type of technology is not generally available in the country. This is because IT has generally been associated with modern electronic products like computers and telecommunications. I am

afraid this thinking should be discouraged if developing countries like Zambia are to make use of any available technology especially in rural areas where illiteracy is still very high among the population.

(iv)   Legislation as an element in national information policy formulation may be described as not important. But it plays a crucial role in implementation of any policy in any country. And Zambia is not an exception because Zambia is a democracy in the sense that there is a National Assembly to which elected members are sent every five years when general elections take place. However, Zambia's political system is quite unique and an explanation as to what this means for the purpose of our discussion is in order.

In Zambia, there is only one legal political party - the United National Independence Party (UNI). It is the supreme policy making body in the country. Note that it is not the legislative body. This means that before legislating for any policy, that policy must be debated and accepted by the Party. Incidentally, all members of Parliament must belong to this one Party. And no policy can be introduced in the county it is not adopted or supported by the Party. Hence, in Zambia, one hears of the phrase "The Party and its Government" because the Government is subordinate to the Party. However, a national referendum will be conducted in the near future to determine the reintroduction of a multi-party political system in Zambia.

The Government implements the Party' policies and decisions. For example, it was the duty of the National Commission for Development Planning (under the Ministry of Finance) to compile and produce the Fourth National Development Plan under the Party's accepted socialist policy guidelines. However, the National Commission for Development Planning had to consult officials from Government ministries and departments, representatives of para-statal organisations, the private sector, trade unions, the University of Zambia and other interested bodies in order to have an integrated view of what the plan should tackle nationally and sectorally. At the moment, the Party is encouraging the flow of ideas on development issues even from below in order to enhance the practice of participatory democracy in every sphere of human endeavour. The information profession in Zambia in its approach to the national information policy issue was guided by this very reality. That is why it has presented its policy document to the Party and not to the Government for debate and final adoption. It is only after this stage will the National Assembly set in motion appropriate legislation for the policy to be enacted into law for it to be translated into action. We believe this will be along process.

At institutional level, one finds legislation that defines what each institution and its role in society should be. For example, there is legislation on copyright laws, censorship and the importation of certain goods and products in the country. Universities, national archives, colleges, etc. all have legislation that circumscribes their existence and functions in Zambia. Indeed, as a means of implementing a national information policy, there is no other way but to have a law passed by Parliament once the Party accepts such a policy

Zambia : information - communication process

In presenting a national information policy for Zambia, the link between information and the whole process of human communication has been recognised. This observation was made in the introduction to this paper. In order to re emphasise this very important point, the information-communication chain is discussed according to its component parts.

-Idea emergence and Information Production:

Looking at Zambia's circumstance in respect to this structure and in the light of what has been discussed so far, one can safely claim that there are Zambians with brilliant minds and ideas. But because of the low level of publishing industry in the country, the information production/generation stage is not well pronounced. This state of affairs means that Zambia relies heavily on information products and resources produced outside her borders. In this case, she has very little control over what kind of materials she obtains for her own purposes although, admittedly, one finds pockets of censorship laws coupled with foreign exchange restrictions. This is certainly not very healthy for a country in a hurry to reduce her dependence on foreign imports, foreign ideas and influence. The national information policy in Zambia has addressed itself to this issue and is the first of a number of recommendations presented to the Party and its Government in Zambia. We have advocated the recognition of the role that indigenous publishing, researchers, writers and other creative artists play in the promotion of information and knowledge transfer from urban to rural areas and vice versa. This is an aspect that we think has been neglected for a long time.

-Information Acquisition:

This is an aspect that include collection, processing, storage and physical distribution of information products like printed and non-print media, information technology in the form of computer hardware and software, telecommunications, radio, television sets, etc. We recognise that institutions like libraries in their traditional meaning, bookshops, archives, museums, information analysis centres, Management Information Systems (MIS), etc. play a critical role in this aspect. The information profession in encouraging the strengthening of the existing institutions and the creation of new ones in order to respond to the expanding needs of the Zambian information users. We believe that the infrastructure for these services exists, but sadly rather unplanned and lopsided. The information policy being advocated is to create a mechanism for the harmonisation and optimum utilisation of these services in order to benefit the nation as a whole. During the implementation of the current Fourth National Development Plan, accessibility to and utilisation of the available information and data must be encouraged.

-Information processing and management:

This aspect of information work endeavours to facilitate proper and efficient utilisation of available resources in order to maximise the value of the information support systems. The available resources include the application of modern information technology to the processing and management of information systems and resources and also the most economical use of qualified and trained information personnel. There is no doubt that both information technology and qualified human resources are in short supply not only in Zambia but also in many other African countries. ECA/PADIS knows that, so too are donor agencies such as IDRC, Unesco, etc. In such a situation, there is absolutely no other strategy, but one that encourages us to enhance the services we provide and to jealously protect our current resource base. And as MacDonald observed, there is need to change our services, methodologies, opportunities and circumstances in order to increase our effectiveness and our efficiency. For this purpose, there are needs to be a different orientation in the way we educate and train the required information manpower. In this connection, we advocate the kind of education and training that imparts to the majority of our information personnel "dynamic technology" which Farrell understands to mean.

"the kind of knowledge that makes the possessor understand the scientific principles governing his work and as such is capable of improving, modifying or changing it to suit changing circumstances. Dynamic technology is the capacity to innovate and invent."

Farrell contrasts this type of technology with what he calls "static technology" as "kind of knowledge that enables the possessor to carry out certain routine tasks and functions successfully eg. copy-typists" (Farrell, 1979)

Sadly, one is inclined to view the current crop of African information experts as possessing static technology. This means in essence that the majority of us are merely copying information systems developed elsewhere without questioning their relevance. I contend that time is ripe to determine our own destiny using local resources. This is what the national information policy in Zambia is trying to emphasise - less dependence on external resources, so claims the FNDP (1989-1993).

-Information Dissemination:

The major aim of any information work is to facilitate the dissemination of information to both actual and potential users. All means of communication channels have been devised by people for the purpose of making access to information resources as simple as humanly possible. This means linking the user to the required information resources must be a fundamental objective of any information policy. Channels of communication such as published and non published literature, libraries, databases, computer terminals, oral literature, etc. must be devised in such a way as to meet identified user needs. They also must be organised, financially supported and managed to optimise information dissemination to the intended consumer target. This is the realm of information marketing and information resource sharing. In Zambia, the information profession has come to recognise these two facets of information marketing and resource sharing in Zambia. It is in resource-sharing aspect that IT will play a vital role.

-Information Utilisation:

As information professionals, we are aware of the implications of the dictum "unless information is utilised, it is no point trying to acquire it". It is the major concern of information work to promote the utilisation of information resources. But there are always problems relating to this aspect of our work. Indeed, not much research has been carried out just to undertake and evaluate how information resources are being utilised and for what purpose. This is a crucial point and one that has to be taken seriously by African information experts. Admittedly, even in Zambia, this is one area that has not been systematically studied in the information communication chain. It is therefore, imperative that steps are taken to advance and promote information utilisation by the emerging information users in African countries. This is an approach that may have wide-ranging implications for the survival of information systems and centres on the African continent particularly in view of the contending forces for the available scarce material, human and financial resources. The national information policy in Zambia does recognise this point as being of critical importance to the future direction of information work in the country.

Conclusion

To summarise, this paper has been an attempt to examine the concept of information policy in general terms. Even the issues and strategies outlined in the paper are indeed of a general nature. This has been deliberate because this writer believes very much in the adage "that beauty is in the eyes of the beholder." In other words, my contention is that the relevance of any policy or strategy is determined by each country's or institution's unique circumstances. If this message has come our loud and clear, then the paper has obviously achieved its major objective. In this connection, the reader of this paper is being admonished to view Unesco's and IDRC's strategies as not being universally applicable in all situations and circumstances. I believe very strongly that this is what the Zambian information policy is attempting to accept. Most problems in Zambia are, in my opinion, unique to Zambia although some of them could be similar to what is obtaining in our neighbouring countries in the sub-region. Our experience can only make sense of understood in the Zambian context. This is the way I look at the process of information policy formulation and implementation at institutional, national regional and international level. ECA/PADIS, Unesco, IDRC, etc. approach to information issues in Africa must be guided by this very important realisation.

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Extract 3 - The National Planning and Development of Library Services in Malaysia

-Dr. D.E.K. Wijasuriya

This chapter is concerned largely with the national planning and development of library services in Malaysia. It touches on the sequence of events, the major developments as well as the operational forces in the hope that they might provide useful leads in the planning and development of library services in Third World countries particularly. In doing so, it must be emphasised that no claims are made that Malaysia's experience in the planning and development of its library and information sector was 'successful'. There have been notable successes to be sure but there have also been failures and shortfalls. It might also be useful to emphasise at this stage that library planning has to be done not only in the context of a country's socio-economic climate but care must also be taken that the machinery for plan implantation is also set up. We must also not forget that a plan is only as good as the people we have to implement it.

Malaysia - country perspective

Malaysia is made up of two distinct land masses located a little to the North of the Equator in S.E. Asia. Peninsular Malaysia which represents the southernmost extension of the mainland of Asia is separated from Eastern Malaysia by almost 400 miles of the South China Sea. Eastern Malaysia comprising of the Malaysian States of Sabah and Sarawak are located on the Island of Borneo, the greater portion of which constitutes Indonesian territory. Malaysia has a long coast line and shares a common land frontier with Indonesia, Thailand and Brunei and is linked to Singapore by a causeway, carrying road and rail communications.

Malaysia has a total land area of about 330,590 sq.km. It is therefore larger than North and South Korea combined (225,724 sq.km.), New Zealand (268,676 sq.km.), or the Philippines (300,440

sq.km..) but is smaller than Thailand (514,000 sq.km.) and Indonesia (1,904,569 sq.km.). Malaysia is also smaller than Papua New Guinea (461.690 sq.km.) although its population of 17,877,000 (1990 estimate) is very much larger than PNG's population of over 3 million.

Malaysia's population is multi ethic and multi cultural. The Malays and other indigenous people (Bumiputras) comprise of just over 56% of the population; the Chinese with about 32%; the Indians with about 10% plus other small groups.

Bahasa Malaysia (Malay) is the official language of the country and is the medium of instruction in schools as well as tertiary education institutions. The country has 7 state supported Universities, established under the provisions of the Universities and Colleges Act. According to the 1980 census, literacy overall was said to be 72.2% and is estimated to have reached 80% by 1990. This however cannot be verified until the 1990 census is published. While the Malaysian Department of Statistics publishes population projections, it does not do literacy projections. Literacy in Bahasa Malaysia according to the 19980 Census was 54.4% while literacy in English was 19.3%. While literacy in Bahasa Malaysia has increased, literacy in English appears to be constant relative to population despite increasing emphasis on English in the last few years. In the 1990 Census, nearly 65.8% of the population was categorised as rural. This figure is estimated to have dropped to 59.3% in 1990.

Malaysia has an enviable record of political stability since political independence in 1957. It is economically vibrant and is resource rich in rubber, palm oil, tin, petroleum, timber, pepper and other commodities. It is still the world's leading producer of rubber, palm oil and tin. Malaysia's economic development is based on its Malaysia Five Year Development Plans which have been put into effect since 1966 and is guided by a number of important national policies, particularly the New Economic Policy. Malaysia is a Federal State and comprises of a federal Government (which dominates the national scene) as well as the 13 states Governments. It is also a Constitutional Monarchy with an elected King (for each five year term) who performs certain ceremonial and other functions. All components of the system function in accordance with the Federal Constitution.

Constitutional and legislative Provisions

Since Malaysia is a Federal State, the legislative competence of the Federal and State Governments has been specified in legislative lists in the 9th Schedule to the Federal Constitution, namely the 'Federal List' the 'State List' and the 'Concurrent List'. Matters specified in the 'Federal List' fall within the legislative competence of the Federal Government, those specified in the 'State List' fall within the legislative competence of State Governments while those on the 'Concurrent List' may concern both the Federal and State Governments. Normally, a matter on which the Government has legislative competence is also a matter on which it carries executive responsibility.

The subject 'libraries' has always been in the 'Federal List' and has been subsumed under the

subject 'Education', which is a Federal Matter. It is against this constitutional background that library planning was undertaken in Malaysia. Among the very first tasks were to provide for state Governments to legislate on public library matters. This was effected through the Incorporation (State Legislatures Competency) Amendment Order (P.U 296 of 1968), which was tantamount to placing the subject of "public libraries" within the "Concurrent List" and therefore a matter on which States could legislate on. In 1988 this provision was further entrenched by Constitutional changes to the 9th Schedule, which placed the subject "Libraries" in the "State List". Public libraries are now very much a 'State matter' in Malaysia. There are however, still some ambiguities, in that the provision of the subject "Libraries" in the "Federal List" has remained unchanged. This matter will have to be clarified in due course by the relevant authorities and appropriate changes made. It does not however affect existing legislative provisions in respect of libraries.

The National Development Planning Process

The concept of producing and implementing Five Year Development Plans, began in 1956, the year prior to political independence in 1957 and has been used as a major instrument by the Government in bringing about socio-economic development within the country. Up to the present time, 7 such plans have been created, with varying strategies and targets based on prevailing Government Policy. These are

(1)   First Malaya Plan 1956 - 60 } emphasis on

                                    } infrastructure and

(2)   Second Malaya Plan 1961-65 } rural development

(3)   First Malaysia Plan 1966-70 } emphasis on economic

                                    growth

(4)   Second Malaysia Plan 1971-75 }

(5)   Third Malaysia Plan 1976-80 } emphasis on the New

(6)   Fourth Malaysia Plan 1981-85 } Economic Policy (NEP)

(7)   Fifth Malaysia Plan 1986-90 }

The Sixth Malaysia Plan 1991-95 is now being prepared and should be published next year.

The NEP dominates the development process. One of the NEP's major objectives is to achieve national unity and integration by:

(1)   reducing and ultimately eradicating poverty in the

country, irrespective of race

(2)   restructuring society in order to reduce and

ultimately eradicate the identification of race by

economic pursuit and domicile.

Other policy tenets include the following:

(1)   the creation of employment opportunities

(2)   increase productivity and incomes

(3)   reduce income disparities

(4)   create a corpus of indigenous (Bumiputra)

entrepreneurs

(5)   employment should reflect the racial

composition of country

(6)   increase educational and training facilities

Funding provisions by the Government for the development process in all sectors is specified in the Five Year Plan, and proposals for such funding support had to fit in with policies and strategies clearly stated by the Government in various guidelines issued prior to Plan preparation. This also applied to library developments, such as buildings, renovations, equipment, furnishing, mobile library vehicles or basic library collections. Given policy objectives of the Government as specified in the NEP, it is extremely difficult to justify the development of libraries, in an environment where there was, for the most part, little knowledge or appreciation of libraries. The existence of a development plan was useful but the librarians had hardly any opportunities to be heard at levels of the Government or the bureaucracy that mattered. Often development proposals were heard by relatively junior officers of the Economic Planning Unit of the Prime Minister's Department, who genuinely sympathised but were unable, on the whole, to sway the thinking at the upper echelons of the economic development planning machinery of the Government. Although Inter Agency Planning Groups (IPG's) were set up to assess project proposals, the libraries were never directly represented and invariably had to rely on relevant Ministry representatives.

Preparing a development was one thing but getting it considered and funded within the frame work of the Five Year Plan was another matter again. Planning for Public Library Services

The very first attempt to submit a library development plan to the Government was undertaken by the Malaysian Library Group (MLG) (the predecessor of the Malaysian Library Association) in the mid 1950s. The MLG Memorandum entitled "A Public Library Service for the Federation of Malaya" was ill-timed as the Government had many other priorities when political independence was achieved in 1957. The Memorandum, furthermore, gave the Government very little of a concrete nature to go on and hence it was no surprise that there was little official reaction.

The Association however continued to harp on the issue of public library development, whenever opportunity permitted, which led to public statements by the Minister of Education on the need of a national library service during the Annual General Meeting of the Malaysian Library Association in 1962.

However it was only in 1968 that the Association was able to obtain, with funding support from the Asia Foundation, the services of Hedwig Anuar to prepare the Blueprint for Public Library Development in Malaysia. The Blueprint was subsequently submitted to the National Library Committee, which studied the proposal, adopted it in principle and made recommendations to the Cabinet. This resulted in some funding provisions by the Government being provided in the Second Malaysia Plan, 1971-1975. Since then, all Five Year Plans have included increasing funding provisions (for development purposes only) for public library services within the country.

In brief, the Blueprint recommended a decentralised state based public library service for the country rather than a federally controlled centralised service. The decentralised stated based service was to be run by independent State Public Library Corporations (State Statutory Bodies) established under the provisions of State Public Library Corporation Enactments. Provision was made for the National Library and the Malaysian Library Association, among others, to be represented on these Corporations. The Blueprint also touched on the role and functions of the proposed National Library, prepared draft legislation for the state public library service and specified standards for public library service. The Blueprint also dealt with the question of professional qualifications, training provisions abroad and included several other provisions such as lists of Malay books which made it somewhat of a manual of practice as well, rather than a development plan perse. These provisions, however, were merely a reflection of the needs at that time. The Blueprint was the most comprehensive statement of public library services in the country at that time and was a necessary first step.

Planning for School Library Services

In 1976, the Malaysian Library Association initiated a project for the creation of a Blueprint for School Library Development in Malaysia. Once Again, with funding support from the Asia Foundation, the Association was able to obtain, with British Council Assistance, the services of a consultant, B.A.J. Winslade to undertake the Blueprint. Owing to delays in the submission of the Blueprint, the Association appointed the writer to revise and complete the Blueprint and edit it for publication, based on draft chapters prepared by the consultant. The Blueprint was formally

submitted to the Hon. Minister of Education in April 1979 at a formal ceremony at the Ministry. The Blueprint for School Library Development in Malaysia, however, followed a series of earlier studies and reports initiated by the Ministry of Education on school library development. These included reports by Margaret Walker (1964), Marion B. Wise (1965) and Frank A. Keyes (1970). This was followed by the Ministry of Education's own 'Dropout Study Report (1973)' which dealt with various aspects of school library development.

Plan Implementation

While development plans are important, the most significant aspect of the development process is the setting up fo the machinery for plan implementation as well as the linkages with the Government to enable development proposals to be seriously considered. In terms of public library development, an entire infrastructure, which included the establishment of State Public Library Authorities as well as the National Library of Malaysia had to be provided for.

In 1966 the Cabinet appointed the National Library Committee (NLC), which was chaired by the Chief Secretary to the Government (the head of the Malaysian Civil Service) to plan for the proposed National Library. The same year, the National Library Services Unit was established within the National Archives of Malaysia. The NLC, under successive Chief Secretaries, continued to function until the National Library was formally established in 1971 and the National Library Act passed in 1972. It was then replaced by the National Library Advisory Board (NLAB), as provided for under the Act. The NLAB was initially chaired by the Chief Secretary, but in his personal capacity. Currently it is chaired by an individual from the private sector. The NLAB, however, has not been as effective an instrument in the development process in respect of libraries.

The National Library, However, functioned not only as an operational institution but also as the key arm of the Government in implementing the Blueprint. During the period 1972-1982, all 11 states in Peninsular Malaysia had passed State Public Library Enactments and had set up their state Public Library Corporations. In Sabah, the State Library Enactment was only passed in 1988. At the present time, only the State of Sarawak has no library enactment. This however is likely to change within the next few years.

The Eastern Malaysian States of Sabah and Sarawak, however, did not adopt the Corporation pattern. In Sabah, public library services were provided by the State Library as a Department of the State Government. After implementing Blueprint recommendations for nearly two decades, it appears, on hindsight that the provision of public library services as a State Government Department may in fact be far more suited to the country than the Corporation pattern. Systems, however, once installed are difficult to change.

With the passage of years it also became evident that the Blueprint was more of a perspective plan and needed to be supplemented by individual state public library development plans, which could be related to the Five Year Development Plans. These State Public Library Development

Plans, usually conceived for a ten year period were undertaken by various individuals. Up to the present time, only 5 such plans were prepared for Selangor (Wijasuriya, 1978), Kedah (Alex Wilson, 1978), Sabah and Sarawak (Stephen Parker, 1980; 1990) and Penang (John Taylor, 1990). Most States still operate without the benefit of these plans. With the exception of Sabah and Sarawak, most of these development plans were initiated by the writer through the aegis of the National Library. Despite the existence of these plans as models, attempts by the writer to get the remaining States to prepare their own State public library development plans with the assistance of the National Library's representatives on the State Corporations, proved a futile exercise. Not only were the relevant officers overburdened with their normal duties at the State and Federal levels, they also lacked the necessary expertise. It seems to be fairly clear now that State Public Library Development Plans for the remaining 8 States will have to be undertaken by private consultants. Although the National Library established its Division for Planning and Development in the early 1990s, the Division Concerned itself mostly with the monitoring of public library development projects at the State Level for which some Federal funding allocation had been made under the Five Year Development Plans.

Public library Services are now provided in all states in Malaysia although the levels of service provided vary greatly. Perhaps the most advanced provisions, relative to other states, are in the States of Sabah and Selangor, with each of the States operating on annually recurrent budgets of 3-4 million Malaysian dollars. Library services to the rural areas are also provided in all States but is still far from satisfactory overall.

In respect of the implementation of the Blueprint for School Library Development in Malaysia, the machinery for implementation had long been established, namely the Ministry of Education and specifically the School Library Unit within the Schools Division of the Ministry. The Education Act (1961) and the Education Policy had also long been established. Neither the National Library nor the Malaysian Library Association played any role in terms of the implementation of School library development.

The Development of Library Services

Public and school library development are only specific sectors. There are however many facets to the national planning of library services and it is rarely possible to fit all these facets into an overall comprehensive national plan. These other facets emerged from time to time and were pursued by the National Library in cooperation with other institutions. Some also were the result of the direct initiatives of other organisations and institutions. Among the major developments, mention is made, in particular, of the National Library (Amendment) Act, 1987. The Act amended among others, the sections on the objectives and functions of the National Library as provided for under the National Library Act, 1972, which continued to remain in force as the principal Act.

The objectives of the National Library under the National Library (Amendment) Act were simply stated as follows:

-to make available for the use of present and future

generations a national collection of library resources.

-to facilitate nation wide access to library resources available within the country and abroad; and

-to provide leadership on matters pertaining to libraries

Based on these objectives, the functions of the National Library were drawn up and were specified in the Act as the functions of the Director General. These are listed in full below:

(i)   to advise the Minister on national policy on

all matters pertaining to libraries and all

other matters pertaining to libraries

(ii)   to advise and assist in the national planning

and development of libraries

(iii)   to acquire and maintain a comprehensive

national collection of library resources

reflecting the intellectual, literary and

cultural heritage of the national as well as a

representative national collection reflecting

the accumulated knowledge and wisdom of

mankind;

(iv)   to establish within the library -

(i)   the National Depository for the storage

and conservation of the library resources received;

(ii)   the National Bibliographic Centre for the maintenance of the national bibliographic network, the national bibliographic data base and the provision of national bibliographic and documentation services;

(iii) the National Centre for Malay manuscripts for the acquisition, documentation and use of Malay manuscripts.

(v)   to provide reference, information, referral, reprographic and lending services;

(vi)   to provide facilities within the Library to enable it to function as -

(i)   the national focal point for the national information system;

(ii)   the national centre for the lending and exchange fo library resources in order to promote the national and universal availability of publications;

(vii)   to promote and to co-ordinate the

        development and use of the library

        resources of the nation;

(viii)   to promote and facilitate the

        establishment of a nation-wide system of

        public libraries in keeping with national

        standards of provisions;

(ix)   to promote the establishment of a network

        of special libraries in keeping with

        national standards of provision;

(x)   to promote and facilitate national and

        international co-operation and resource

        sharing within libraries;

(xi)   to undertake and facilitate research on

        matters concerning libraries;

(xii)   to provide training in order to upgrade

        professionalism in library matters;

(xiii)   to promote and facilitate the inculcation

        of the reading habit;

(xiv)   to co-operate with the relevant agencies

        in order to promote and upgrade the use

        and development of Bahasa Malaysia;

(xv)   to co-operate with professional and other

            bodies at national and international level

            for the development of libraries;

(xvi)   to lend, sell or otherwise dispose of

            library resources forming part of the

            library;

(xvii) to do such other things as may be deemed

            necessary to give effect to the objectives

            referred above

Clearly, in terms of functions, the National Library has been assigned a wide ranging, if onerous, national remit. An implementation plan needs to be drawn up with emphasis on priority areas and the resources required to implement provisions.

In December, 1986 the Deposit of Library Material Act, 1986 (Act 331) was also passed by Parliament which repealed the Preservation of Books Act, 1966. The new Act designated the National Library as the sole Legal Depository for the country and terminated deposit privileges to 8 other Demand Depositories established under the provisions of the earlier Act. The new Act also provided for the deposit of 5 copies of printed library material as well as the deposit for the very first time, of 2 copies of non-printed library material, ie, tape, film etc., although the publishers could request compensation for the latter. The National Library also has, by the provision in the Act formed Agreements with 2 institutions, namely University Sains Malaysia and the Sabah Central Library to act as Distributed Depositories of the National Library in order to ensure that 2 of the 5 copies of library materials deposited will be deposited at centres distant from the National Library as a precaution should any calamity befall the National Library in the Federal Capital Territory. Since the present storage capacity for legal deposit materials in the Distributed Depositories is limited, there is a possibility that other Distributed Depositories may be designated for the deposit of certain forms of material only, such as newspaper or serials. The act places no limitation on the number of Distributed Depositories that may be so designated.

Another important feature of the Act is that it provided for the very first time for the conservation and use of library material deposited, for the creation of the standard bibliographic record and for the publication of the national bibliography. Legislative provisions alone however are insufficient and in order to provide for the effective implementation of the Act, the Legal Deposit Unit was upgraded into a full Division headed by a Senior Officer on Super -scale Grade. The Gifts and Exchange unit was also absorbed into the new Division thereby leaving the Acquisitions Division as a purchasing Division. Greater staffing support for the new Division however will be necessary, particularly field officers. Should this not be possible, State Public

Libraries may have to be designated to collect legal deposit material published within the State on behalf of the National Library, subject to such conditions as may be mutually agreed between both parties.

Another aspect of national planning relates to efforts to coordinate and maximise through cooperative effort "the development and use of the library resources of the nation". another of the functions of the National Library. This began as a project to create a Research Library Network in Malaysia and took its most concrete form as the MALMARC (Malaysian (MARC) Project, which began as a UNESCO pilot project in 1978 and became operational in 1980. MALMARC is a cooperative cataloguing project undertaken by most of the university libraries and the National Library, with Universiti Sains Malaysia serving as the coordinating centre. The MALMARC system maintains catalogue records of participating institutions in COM. and generates the union catalogue as well as institutional accessions lists. The MALMARC system now has a database of over 500,000 records and is to be taken over by the National Library as the nucleus of the national bibliographic database and the national bibliographic network. Unfortunately the climate of cooperation and convergence fostered in the 1980s is beginning to break down in the 1990s. The beginnings of divergence and a tendency of 'going ones own way' has begun to manifest itself. There is at the present time no clear idea as to the direction that needs to be taken. Certain lines of action are being considered which are unlikely to bring about the desired results.

in 1988, the National Library also initiated and formalised a Document Delivery System for the country. The DDS is based on a Memorandum to facilitate the National Availability of Publications which participating institutions sign with the National Library. Up to the present time, well over 100 institutions have signed the Memorandum.

Of even greater significance perhaps in terms of national planning, is the National Policy on Library and Information Services which was approved by the Cabinet in 1989. The National Policy was formulated by a Task Force chaired by the writer and is likely to have an even greater impact on the further development of library and information services within the country. (The text of the national policy is given in Appendix I to this volume). On hindsight, it seems that the national policy for library services should have been formulated very much earlier. But it was never considered until UNESCO's NATIS, there were no tangible results. In 1981, the writer first suggested moving away from the Unesco recommendation of formulating a National Information Policy and suggested instead that efforts be devoted to the formulation of the National Policy on Library and Information Services. This idea was endorsed by participants at CONSAL V (the Fifth Congress of South East Asian Librarians) in Kuala Lumpur in 1981 and was subsequently adopted as one of its main resolutions. The Task Force however was only set up in 1984 and completed its work in 1986. Cabinet approval, however, only came in 1989. This was largely due to delays in the bureaucracy. Whether a policy of this nature could have been considered seriously by the Cabinet a decade earlier, when the infrastructure for libraries was still being established, is a moot point.

It is also useful to mention that much of the developments after the Blueprints, resulted from the stimulus provided by UNESCO's NATIS (National Information System) programme, which was

pursued by the National Library even after it was discontinued by UNESCO and merged into the General Information Programme.

Conclusion

The Malaysian Library Association certainly played a crucial role in the 1960s and 1970s in pressing for public and school library development. Its Blueprint for Public Library Development (1968) and its Blueprint for School Library Development (1979) are important aspects of overall national development planning and have provided useful guidelines. The former was implemented to a greater degree since the National Library was charged with the implementation of its overall proposals. The National Library was somewhat handicapped in this task since a Federal Agency (viz> the National Library) had been given the task of implementation at the State level, although legislation only vested it with an advisory role. The Blueprint for school libraries, however was implemented by the Ministry of Education and did not involve the National Library or the Malaysian Library Association in any way.

Wherever country situations permit, it would be invaluable if a library development plan, even in broad outlined, could be prepared, the issues put in priority order and pursued with single-minded purpose by all concerned. Crucial for this purpose is effective leadership, a climate of cooperation and the ability to secure the necessary support at the highest policy levels of the Government

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Malaysia. National Policy on Library and Information Services

1. Introduction

The National Policy for Library and Information Services sets out broad guidelines for the systematic and planned development of library and information services in keeping with the major needs of major sectoral areas as well as the needs of all sections of the community whether in the urban or rural areas. The National Policy for Library and Information Services has been formulated taking into consideration the infrastructure of library and information services provided in the country at the present time as well as the legislation enacted for the establishment of the National Library of Malaysia, the State Public Libraries and for the legal deposit of library materials.

2. Scope

The scope of library and information services is deemed to cover the acquisition, organisation, management, and dissemination of library materials and the information contained therein. Library materials include any form of printed, graphic, audio, electronic or other media on or in which information is written, recorded, stored, displayed or produced and is categorised for purposes of the Deposit of Library Material Act 1986 into:-

      (a)   printed library material including books,

serials, maps, charts, posters; and

    (b)   non-printed library materials including

cinematograph films, microforms, phono-records,

video and audio recording and other electronic

media.

3. Objective

In consonance with the Government's objective to create a reading and informed society, the National Policy for Library and Information Services aims at the provision and progressive improvement of library facilities and services in order to contribute effectively to national development and provide, in particular, effective support for:-

    3.1   the policy formulation and decision making

process;

    3.2   planning, research and development activity;

    3.3   the educational process;

    3.4   the intellectual development of the people,

their economic activity and the fulfilment of

their cultural and recreational needs.

4 Strategy

In order to achieve policy objectives the strategies for library development are as follows:-

4.1   appropriate library and information services

commensurate with needs shall be provided;

4.1.1 to serve Parliament, Government Ministries and Departments, research institutes, universities, colleges and tertiary education institutions and schools;

4.1.2   in every district and mukim within the country in such manner that those desirous of using such facilities will have convenient access to them; and

4.1.3   to serve the under privileged and handicapped members of society.

4.2   In order to provide library and information services commensurate with needs, library materials produced within the country as well as abroad shall be acquired in accordance with

national standards of provision, giving due consideration to the need to minimise unnecessary duplication of resources;

4.3   Publishers in the private and public sectors shall be encouraged to increase substantially their publications in all fields and to suit all interest levels in accordance with the basic tenets of the National Book Policy;

4.4 Library and information resources and facilities provided by agencies in the public sector are part of overall national provisions for the people and shall be made easily accessible subject to priority access that may be accorded to the primary clientele;

4.5 In the provision of library and information services, special emphasis shall be placed on the sharing of resources in order to maximise benefits from the investment of public funds. For this purpose, computer, micrographic, telecommunications and other appropriate technologies shall be fully exploited. In this regard, telecommunication developments shall provide adequately for the data-communication needs of libraries and information services;

4.6   As part of the intellectual and cultural heritage of the nation, all library materials published or produced within the country shall be deposited and conserved in accordance with legislative provisions in force and made as accessible as possible;

4.7   In order to provide for the effective use of library materials, library and information services shall provide, as appropriate:-

4.7.1   Proper documentation of their resources in conformity with national standards, so as to facilitate the creation and maintenance of an integrated national data base;

4.7.2   access to computerised data bases at the national and international levels;

4.7.3   lending, reference, referral, information analysis and consolidation, bibliographic, selective dissemination and document copying facilities;

4.7.4   user education programmes so as to create an information conscious society; to increase user awareness and appreciation of the importance of information and to enable users to derive maximum benefit from the use of library materials; and

4.7.5   programmes to inculcate and encourage the development of the reading habit.

4.8   In order to reduce the nation's dependence on external sources of information, effective measures shall be taken.

4.8.1   to exploit national sources of information and develop national data bases, particularly in major development sectors; and

4.8.2   to establish specialised information centres and systems in areas deemed to be of national importance.

4.9   In order to provide the professional manpower to facilitate the nation-wide development of library and information services, measures shall be taken to:-

4.9.1   provide library education and training facilities within the country at the tertiary level;

4.9.2   produce the required manpower with the appropriate qualifications, knowledge, attitudes and skills;

4.9.3   provide for the further exposure and continuing education for professional personnel;

4.9.4   provide for the staffing of library and information services in keeping with national norms and standards.

5 Implementation

The progressive improvement of library and information services will necessitate effective mechanisms to initiate, coordinate and monitor the implementation of policy. In this respect, the National Library Act provides adequate provisions at the present time. The effectiveness of these mechanisms shall be reviewed and new provisions made should this be necessary.

Extract 4 - Planning and developing libraries in support of literacy promotion: some major considerations

-Maurice C. Lundu

An attempt, albeit theoretical, is made to examine the planning and evolution of libraries in relation to literacy in third world countries generally. Admittedly, the paper lacks references to any practical experience because the author knows no library in his region that has responded positively to this particular need. Emphasis is no how a public library in particular could play a prominent role in the diffusion of literacy in any community. To this end, a number of factors are identified and briefly discussed.

Any meaningful planning to evolve library services that will contribute to the eradication of illiteracy through literacy promotion should be based on a careful analysis of a number of factors. These factors must, by and large, revolve around a clear understanding of what the concepts of "literacy" and "library" really are. For the purpose of this paper and the discussions that are likely to ensue, a library's positive response to the general promotion and indeed maintenance of literacy is generally a factor of a number of considerations that are always at play. Among these considerations are the following:

-A clear analysis of the library's role in literacy

      programmes.

-An understanding of the social, economic, political and technological structure of the society in which the library is going to operate.

-An understanding of the reading behaviour of the people the library is indeed to serve.

-Effective co-operation and collaboration between the library and all the institutions involved in literacy programmes.

-Accessibility of the library by both students and teachers of literacy.

-Adequate funding.

-Adequate staffing.

-The library's relationship and interaction with local political and educational authorities.

While some of these factors will be expanded upon in this chapter, discussion must inevitably start by putting both literacy and the library in their true perspective. In order to do this, we therefore begin with some definitions of these two concepts so as to clarify certain misunderstandings one regularly associates with these terms. Let us accept that literacy as a term is loaded with all kinds of subjective interpretations. It is wrong to assume that literacy is universally understood and interpreted in the same way everywhere. This author acknowledges this problem when attempting to define this particular term. Nevertheless, one has to find an operational definition in order to find a way of handling the issue we are endeavouring to provide answers to. The author relies on the definition provided by the <u>International Encyclopedia of the Social Sciences, Vol. 9 (1968)</u> which states:

> Literacy refers to the degree of dissemination among a society's population of reading and writing. Here, a 'literate' society is one in which most adult members can read and write at least a simple message.

Although this definition is most certainly disputable, I have no doubt that in this context, at least one can safety describe most societies in Southern African countries as not yet "literate", even though some of them can boast of having many highly educated persons in their midst. The number of adult members who read and write in our region is unfortunately below 40 percent.

It has now been generally accepted that low levels of literacy as understood here act as brakes on the advancement of countries along the paths of social and economic development and political power. For example, illiterate persons are prevented from escaping poverty and mental isolation;

they lack an understanding of democratic process within and outside their communities. It is, therefore, imperative that some diffusion of literacy takes place with this realisation at the back of our minds. We must bear in mind that diffusion of literacy in any society takes place most rapidly through: -

- young adults.

- those aiming for skilled occupations for themselves or their children, and

- those - such as city dwellers - who have relatively easy access to the means of learning.

Hence, during the transitional period, some literacy differentials within countries are predictable and discernible. This is indeed the case even in the countries in Southern Africa.

The question of diffusion of literacy in society quite conveniently brings us to the discussion on the role of the library in the promotion of literacy. But before delving in greater details into this matter, let us briefly try to understand what a library is in modern day society.

Literature review reveals that the term 'library' is invoked to mean different things to different people. However, because the concept has a Latin root that means 'a book', most writers, practitioners and ordinary people tend to associate the library mostly with books in their physical form not necessarily as carriers of information and knowledge.

There are two major reasons contributing to the problem of defining a library. Firstly, a definition of what ever concept (like literacy) is naturally conditioned by the experience and education of, and values attached to it by the individual describing the concept question, and secondly, a library itself is an institution designed by society to carry out certain functions essential to human progress. As such, it is dependent upon both natural and social forces acting upon it within a particular environment at a specific moment in time. In this context, a library could be regarded as being dynamic and hence develops or evolves to answer specific needs of society during the evolutionary continuum.

For the purpose of this discussion and taking into account the theme of this chapter, this author very strongly accepts the view that a library is indeed one of the many channels of communication and information handling institutions that society anywhere in the world has created in order to facilitate some aspects (not all) of communication and access to information in whatever format such information is encrypted.

Taking this conception of a library as our operational definition, there is no doubt therefore that a library, if properly planned and designed, has indeed a positive role to play in the diffusion of literacy (as defined above) among society's illiterate population in the third world. We believe that the library and the library profession originate with literacy. The library is to the literate society what the memoriser is to the preliterate or illiterate society.

For the sake of this debate only, we shall restrict our discussion to public libraries because a public library is characterised by:

-Its service and responsibility to the public at

large.

-Its being a public property in that it is maintained

by public funds.

-Its authority being linked to local, regional, state

or national government or bodies.

-Its information resources and provision not being or

specialised.

-Its being the first point of contact between the

general public and the local, regional or the

national library network. (Lundu, 1982).

We contend that it is these characteristics that make a public library a foundation upon which diffusion of literacy, and literacy campaigns and promotion should very much be built. Indeed, both formal and informal education, recreation, entertainment and leisure must give a public library a greater role in the diffusion of literacy because these social aspects are central to the progress of human beings both as individuals and members of larger communities. the next stage is indeed how the library should be involved in the diffusion of literacy itself. We now turn to this aspect.

As pointed out in the introduction - and as observed in the section on what a library is - a library is a creation of society. It is certainly established to meet identified needs of such a social

structure. That is why it is critically important to understand clearly the needs of the society the library is intended to serve. Obviously, the library's role must be related to the activities and social, economic and scientific needs of such a society. In the present context, our emphasis is on the diffusion or promotion of literacy. We believe that proper analysis and understanding of the society's cultural, social, economic and political structure must precede any planning for libraries and literacy. What type of cultural behaviour, traditions, religious practices and beliefs are likely to promote or hinder literacy promotion in a society that is for example dominated by oral communication systems?

In economic terms if, for example, the society is controlled by a farming or fishing or hunting community, planning and developing a library that will involve literacy promotion should seriously take that into consideration. This will be of crucial importance particularly in functional literacy. Hence, there must be a deliberate bias of making available literature that will improve on this type of economic activity. The question of providing relevant information resources for literacy will be discussed below.

This writer is of the view that monitoring the reading behaviour of new literates has not been of vital concern to many librarians in both developed and developing nations. Professional librarians have quite wrongly felt that their major concern is merely the provision of reading materials. This mentality must change. We know that as people graduate from being illiterates to literates, their reading patterns and behaviour do inevitably change. They discard general literature and concentrate on the literature aimed at improving their newly acquired reading skills. They start consulting materials related to job situations, community politics and problems and self-improvement so that they can obtain more certificates to enhance their educational standards and performance in society. In order to achieve all these, they will look to the library to provide the needed information. The library must therefore be looked at as the "people's university", and as such must rise to meet this new challenge. It is in this context that one must understand why the public library should take the lead in the diffusion of literacy particularly in the third world countries. However, constant monitoring of the changing reading habits of the new literates must pre-occupy any public library wishing to meet new information needs of the literate community. Hence, librarians working in public libraries must inevitably become literacy educators themselves.

The major activity of any library worth its salt is information collection and dissemination. Information, as we are aware, is produced in a variety of formats, such as printed and non-print formats etc. At the moment though, we are mainly concerned with literature produced and collected by a library to specifically assist in the promotion of literacy.

In our case, we need to collect literature to assist first of all teachers of literacy. This, I believe, is one literature that is scattered all over. It is important to look for this literature and repackage it in such a way that illiterate and semi-literate rural communities can make use of them through their teachers. This what is being done in Zimbabwe where "culture houses" are being established. In the context of Zimbabwe, a Culture House contains a library, a museum, an oral archive, an all purpose hall, a theatre, arts and crafts centre and a printing workshop. All these are under one roof (Made and Motsi, 1986).

After the scattered literature has been collected, it should be the library's responsibility to organise it and make it available to teachers of literacy. To this effect, the library should prepare reading lists, study kits and to some extent, games which it should pass to teachers of literacy.

As far as students of literacy are concerned, the library should again make necessary arrangements so that materials prepared for teachers of literacy are also made readily available in the library for use by students after literacy lessons. Of course, literacy lessons such as spelling games and reading skills should most preferably take place within the confines of the library building itself.

In the process of collecting materials especially for literacy students or classes, it should be noted that such materials must be at two levels, namely: for general literacy and functional literacy. Materials to support general literacy as the term implies will be quite general in the sense that its role will be that of supporting and improving the newly acquired reading skills. The danger of not providing back-up materials to new literates is that they would easily lapse into being illiterates. This particular process has been identified by various writers on the topic who have likened literacy to a child that learns to walk when it is young, but once confined to a bed for a few weeks, the process of walking has to be learnt all over again. This fate for new literates should be avoided at all cost. And that is where a library must play a pivotal role by providing appropriate reading materials to attract the attention of new literates all the time.

The second category of material to be collected and made available is that required to support functional literacy. This is the material literates required in order to make them cope with their daily activities and routines.

The point is that, as the illiterates become literates, they become adventurous in their reading habits and become explorers in the literature maze. They want to start discovering new horizons using their newly acquired skills. They now want to apply their new skills to real life situations. A library that is really active in the community will notice this desire and then capture the mood and use it to support literacy campaigns in the community.

If the library is to effectively play its role as a collector and disseminator of information in response to literacy programmes, its success in this venture will to a large extent depend on the kinds of co-operation it receives from all those institutions involved in the generation of information. Among the principal actors the library will have to collaborate with in this undertaking are:-

-        Publishers

-        Booksellers

-        Printers

-        Translators

-        Public Broadcasting both on radio and

                     television.

-        Writers

-        Education authorities

-        Theatre groups

-        Professional Associations

-        Appropriate Ministries e.g. Education and

         Culture, Social Services and Labour etc.

For literacy programmes to be a great success, there should be close co-operation between and among public libraries, printers, publishers, translators and writers to ensure that certain essential materials are produced in local languages used in literacy campaigns and made available in libraries. Publishing mainly for profit should not be an overriding factor in deciding what to publish. There is absolutely no reason as to why, for example, important works such as laws of the country, health information bulletins, farming news bulletins etc., cannot be translated in the local languages people understand. All those reading materials that are used for radio literacy programs should also be made available to public libraries so that people can have access to them.

Planners of literacy programs should take maximum advantage of village regrouping exercises and seriously consider introducing book-box facilities in places where centralised library services and mobile library services are not feasible. This should involve a given central public library preparing the required reading materials, boxing them and despatching them to those in charge of village literacy activities. This should be done on the same line as is done in the now

popular medical kit in Zambia. This would be a great service to the rural communities.

The need for libraries to seek full representation on district council committees charged with the formation of district education policies cannot be over emphasised. Properly and well designed libraries with proper facilities, theatre groups should also be encouraged to put up plays on literacy themes using their hall facilities. These should be given maximum publicity in order to attract as many people as possible.

It is with this point in mind that I support the following comment:

> "Public libraries ought to be not just book-lending centres. The advent of record libraries is a step in the right direction. In my view, they become cultural centres in the widest sense of that term - a place where people can gather to talk, to hear a variety of discussions - the very heart of the local community."
>
> Library Association Record, 1967.

Public libraries in the third world countries must be planned and developed with this philosophy in the forefront if they have to effectively and efficiently undertake literacy promotion in the communities.

CONCLUSION

In summarising the arguments presented one can safely assume that effective planning for libraries and literacy will call for wider and active definition of the library's role to facilitate communication and an understanding of a variety of factors in the diffusion of literacy. The library must seriously define its acquisition policy to include materials for literacy. It must mount massive publicity campaigns most probably through the national library association. It must be involved in the preparation of reading kits, book boxes as well as reading games in order to support literacy programmes. In this process, co-operation with other institutions and organisations concerned with literacy programmes such as community centres, literacy clubs, adult education organisers, etc. must be pronounced. In addition, the library must be centrally located so as to ensure maximum accessibility. The library must be properly and adequately funded and staffed by innovative and committed professionally qualified personnel. Where library service to rural communities have ceased to exist, these should be revised and involve village community leaders. We must remember that eradication of illiteracy is not the domain of one group of people. Diffusion of literacy is multi-disciplinary and as such must involve a multitude of actors banded together for one common goal that is to save society from the dangers of illiteracy.

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