



UNDP



ASSISTANCE TO THE DEVELOPMENT OF BARD PROJECT

A project of the Government of the People's Republic of Bangladesh
Sponsored by the United Nations Development Programme

TRAINING AT BARD PLANS AND ACTIONS FOR UPGRADATION

Bangladesh Academy for Rural Development (BARD)

Kotbari, Comilla, Bangladesh

312404



ASSISTANCE TO THE DEVELOPMENT OF BARD PROJECT

A Project of the Government of the People's Republic of Bangladesh
Sponsored by the United Nations Development Programme

TRAINING AT BARD PLANS AND ACTIONS FOR UPGRADATION

**Bangladesh Academy for Rural Development (BARD)
Kotbari, Comilla, Bangladesh**

3431

Published by :

The Director General
Bangladesh Academy for Rural Development (BARD)
Kotbari, Comilla - 3503

Tel : (081) 6428, 8406, 6102

July 1993

A 3432

658-3/2404
SET
C-2



Printed at

BARD Computer Centre
BARD, Kotbari, Comilla.

FOREWORD

Bangladesh Academy for Rural Development (BARD), the pioneering institute of its kind in the country and in the South-east Asian region earned name and fame through its innovative actions in conducting training and research and evolving appropriate and innovative models of rural development programmes. After more than three decades of its establishment in 1959 it faced a number of limitations in utilizing its full potential. Such limitations included: lack of adequate facilities for the Faculty members for acquiring higher education and training; lack of a framework for a medium term research activities in conformity with the important contemporary research issues; lack of appropriate technologies and income generating activities for the rural poor especially women for adaptation through action research and finally lack of a good development communication and information system for diffusion of the findings of research, training and action research activities of BARD.

In order to overcome the limitations, the Academy felt the necessity of expert consultancy in the relevant fields and the United Nations Development Programme (UNDP) came forward to assist it by providing a technical assistance through a project called Assistance to the Development of BARD (ADB). Under the aegis of the project, three expatriate and four national Consultants were appointed for a total period of 66 man-months to work in four specific areas. Dr. S. K. Saha from the Centre for Development Studies (CDS), University of Wales, U.K. was appointed as the

Socio-economic Research Consultant-cum-Chief Technical Adviser (CTA) for 16 months. After 10 months of his service when he resigned on personal grounds, he was replaced by Dr. K. C. Alexander, Director(Sociology), National Institute of Rural Development (NIRD), Hyderabad, India for the rest of the period. The Socio-economic Research Master Plan of BARD is the outcome of the exercises of these two expatriate Consultants. Dr. Dibyendu Sen, Director (Extension and Transfer of Technology), NIRD, Hyderabad, India worked for 12 months as the expatriate Consultant on Training and Education. He prepared the Master Plan on Training at BARD. An Action-Research Plan on Specific Areas of Appropriate Technologies and Income Generating Activities for Rural Women was prepared by Mr. A.K.M. Shahjahan and Mr. M. Nurul Huq who worked for 12 and 6 months respectively as National Consultants. A group of three Consultants consisting of expatriate Consultant Mr. S.B. Thakur, from the Centre for Nepal and Asian Studies, Tribhuban University in Nepal, two National Consultants Dr. M.A. Mannan, Director, Rural Development Academy (RDA), Bogra and Mr. Minhajuddin Ahmed from Fisheries Research Institute(FRI), Mymensingh prepared the plan on Upgradation of the Development Communication and Information Units at BARD. They worked for 3, 6 and 12 months respectively.

We appreciate the works of the Consultants and express our sincere thanks to them for their valuable contributions. It is expected that the reports of the Consultants in four specific areas will provide a framework for future activities of the Academy. The outputs of the project have been discussed in

several fora in BARD and outside including the Annual Planning Conference (APC) of BARD held in Comilla on 24-25 July 1993 which helped in the formulation of the Annual Plan of BARD for 1993-94. A separate Management report has been prepared on the basis of the outputs of ADB project to assist BARD in its programmes for next few years. We also express our thanks to UNDP for funding the project and to the Rural Development and Co-operative Division (RD CD) of the Ministry of Local Government, Rural Development and Co-operatives of the Government of Bangladesh for its co-operation. The project was the first nationally executed UNDP assisted project in Bangladesh and we hope the experiences gathered through successful execution of this project by BARD would pave the way for BARD and other national institutions to execute more projects of such nature in the future.

July 1993

Dr. Salehuddin Ahmed
Director General, BARD
and National Project Director,
ADB Project

PREFACE

The Assistance to the Development of BARD (ADB) Project was the first nationally executed UNDP-assisted Project in Bangladesh. Bangladesh Academy for Rural Development (BARD) was selected as the executing agency of the project by the Government of Bangladesh. The four-year project commenced from 15 October 1989 to come to an end on 14 October 1993. As a part of the technical assistance provided to the Academy through the project, three expatriate and four national Consultants were appointed to work for a total of 66 man-months to prepare their consultancy reports on four specific areas. In completing their works, each Consultant was assisted by a two-member team of Policy Counterpart and Action Counterpart who were selected from the BARD Faculty.

It was a pleasure for me to be associated with the project starting from preparation of the project proposal, drafting the PRODOC and finally working as the Deputy National Project Director vis-a-vis Executive Project Director. Though the responsibility was given to me on gratis and in addition to my normal duty, yet it took lot of time and gave me lot of strains during the last four years. The most rewarding part of my job was the association with the expatriate and national Consultants of the project, and the experiences gained through successful execution of the first nationally executed UNDP-assisted project in Bangladesh. I shall consider all my hard work worthwhile if it paves the way for BARD and other national institutes in Bangladesh to execute more and more such projects in the future.

On this opportunity I express my heartfelt thanks and gratitude to all concerned including the Director General of BARD for the role played by them in connection with the implementation of the project.

July 1993

MD. ABDUL QUDDUS
Director (Research), BARD
and Deputy National Project Director
ADB Project

CONTENTS

	<u>Page</u>
Preamble	
<u>Part I</u>	
1. Master Training Plan for BARD	
1.1. Training and Education in Rural Development - Fresh Look at Global Perspective	4
1.2. National Priorities for Rural Development Training and BARD	10
1.3. Training Plan - Systems Perspective	16
1.4. Review of Focus of the Academy	22
1.4.1. Research Focus	22
1.4.2. Action Research Focus	27
1.4.3. Training Focus	29
1.5. Perception of the Faculty - An Endogenous Factor	43
1.6. Review of Training Design	51
1.6.1. Changing Clientele Profile	52
1.6.2. Demands from the Clientele Organisation	55
1.6.3. A look at the Changing Course Contents	58
1.6.4. Training Methods	65
1.6.5. Faculty Support	67
1.7. Definition of Training Goals	68
1.8. Review and Upgrading of Present Training Curricula	77
1.9. Identification and Selection of Appropriate Training Techniques and Methodologies	96
1.10. Selection of Supporting Materials and Allocation of Facilities and Resources	106

1.11. Selection of Appropriate Evaluation Techniques	119
1.12. Emerging Recommendations	132
Glossary of Training Terms	137
A Select Bibliography on Training	180

PART 2

2. Module on Training of Trainers for BARD Faculty Members	
2.1. The Task	194
2.2. Training Need Assessment	194
2.3. Training Strategy	196
2.4. Consultation	199
2.5. Administering the Programme :	199
2.6. Evaluation	203
2.7. Consultant's Comments	205
2.8. Guideline for Conducting Similar Programmes	206

PART 3

3. Manual on Audio-Visual Communications in Training	
- Need	208
Use of Audio Visual Aids in Training	209
Systems Approach to Audio-Visual Communication	209
Types of Audio Visual Aids Useful in Training Situation	214
Designing Artwork for Instructional Visual Media	220
Use of Photography in Developing Visual Aids	234

Planning and Preparation of Non-Projected Visual Aids	255
Planning and Preparation of Projected Visual Aids	262
Factors Influencing Selection of Audio Visual Media	290
 <u>PART 4</u>	
4. Rural Development Strategies and Experiences in Bangladesh : Some Issues - Review Paper Prepared for the International Seminar on Rural Development in Bangladesh : Strategies and Experiences	270
References	380
Annexures	

LIST OF TABLES

1.1.	Typology of Training Institutes Catering to the Requirements of Rural Development	10
1.2.	Thematic Distribution of Major Completed Research Projects	24
1.3.	Thematic Distribution of Completed and/or Ongoing Action Research Projects	28
1.4.	Shift in Training Focus : Programmes, Clientele and Load	30
1.5.	SWOT Perception of Faculty Members of BARD	47
1.6.	SWOT Matrix of Faculty Perception	50
1.7.	Demands for Training Programmes - An Illustrative Account	59
1.8.	Use of Various Kinds of Training Methods in Selected Courses	67
1.9.	Distribution of Sessions Handled by BARD/Guest Faculty	68
1.10.	List of Training Goals	69
1.11.	Training Materials Available in the Academy and Their Use	110
1.12.	Distribution of Faculty Members According to Various Categories of Subject Specialisation	113
1.13.	Extent of Utilisation of Faculty Resources Towards Training in the Academy	117
2.1.	Distribution of Sessions According to Thematic Coverage : Phase I	201
2.2.	Distribution of Sessions According to Thematic Coverage : Phase II	202
2.3.	Distribution of Sessions According to Faculty Resources	202
2.4.	Programme Effectiveness Score : Distribution in Respect of Various Dimensions	204

PREAMBLE

The Bangladesh Academy for Rural Development (BARD) - acts as the focal point for training of Government officials in the socio-economic aspects of rural development. This Academy, in conjunction with the Rural Development Academy (RDA) in Bogra, plays a complimentary role in providing basic foundation as well as refresher training to the country's Government officials at all levels in the sociological as well as technical aspects of various rural development projects. The uniqueness of the academy's training programmes lies in their close integration with the research and action research activities, which culminated into evolving of a number of replicable models of rural development during seventies for the country as a whole. But the relative vacuum in the socio-economic scenario, under which these models were evolved during seventies, have been subsequently filled up to a considerable extent with number of interventions made by several government and non-government organisations. A strategy based on freshlook at the whole gamut of activities, was felt necessary for adoption. The 'Assistance to the Development of BARD' Project (BFD/85/023/A/01/99) under the UNDP assistance, thus contemplated "to overcome constraints in the specific areas of training, communication, research and pilot experimentation in order to exploit more fully the potential of BARD and strengthen its role in rural development" (PRODOC, p.10).

The services of an expatriate Training and Education Consultant, among a group of national and international

consultants, was requisitioned with following major 'Terms of Reference':

- * assist in preparation of a master training plan for BARD training activities;
- * advise, BARD in the organisation, programming and evaluation of training sessions;
- * identify content, plan and help execute workshop/training session on training methodology and curriculum planning for inservice trainers;
- * introduce, apply and evaluate training methods and techniques, appropriate to the broad spectrum of clientele engaged in rural development;
- * cooperate with the Development Support Communication Consultant to produce training manual and teaching aids for use by field level trainers.

This report is the culmination of the consultancy mission. It provides an account of all the abovementioned activities, organised into four parts:

Part 1 : Master Training Plan for BARD :

1.1. Training and Education in Rural Development - Fresh Look at Global Perspective; 1.2. National Priorities for Rural Development Training and BARD; 1.3. Training Plan - Systems Perspective; 1.4. Review of Shift in focus of the Academy Research and Training; 1.5. Perception of the Faculty Members; 1.6. Review of Training Design; 1.7. Definition of Training Goals; 1.8. Review and upgrading of Present Training Curriculum; 1.9. Identification and Selection of Appropriate Training Techniques and Methods; 1.10. Selection of Supporting Materials and Allocation of Facilities and Resources; 1.11. Selection of Appropriate Evaluation Techniques. 1.12. Emerging Recommendations.

Part 2 : Module on Training of trainers for BARD Faculty Members :

2.1. The Task; 2.2. Training Need Assessment; 2.3. Training Strategy - Training goals; Content planning : phase I and II, Training Methods and Resource utilisation; 2.4. Consultation; 2.5. Administering the Programme; 2.6. Evaluation; 2.7. Consultant's Comments; 2.8. Guideline for Conducting Similar Programme.

Part 3 : Manual of Audio Visual Communication in Training.

3.1. Use of Audio Visual Aids in Training; 3.2. Systems Approach to Audio Visual Communication; 3.3. Type of Audio Visual Aids Useful in Training Situation; 3.4. Designing Artwork for Instructional Visual Media; 3.5. Use of Photography in Developing Visual Aids; 3.6. Planning and Preparation of Non-projected Visual Aids; 3.7. Planning and Preparation of Projected Visual Aids; 3.8. Factors Influencing Selection of Audio Visual Media.

Part 4 : Review Paper "Rural Development Strategies and Experiences in Bangladesh : Some Issues".

PART 1

MASTER TRAINING PLAN FOR BARD

1.1. Training and Education in Rural Development - Fresh Look at Global Perspective

Training and education have long been recognised as the cornerstone of all kinds of economic and social development. More recently, however, it has become even more important to the development process as accelerated technological change and new organisations of production transform the world economy. Development in all its forms - economic, social and cultural - depend increasingly on knowledge intensive industries, agriculture and services. Training and education provide key to developing that knowledge and the service of personal efficacy needed to adjust to rapid changes (Haddad, et. al. 1990) A number of countries have achieved high economic growth with significant investments in training and education. USA alone spends nearly \$12 billion on training annually. The single best measure of education or training's economic impact is the additional productivity of workers and farmers with more training exposure. However, it has been empirically found that the positive effect of education and training on output is found especially with on-the-job training (Fuller, 1970; Min, 1987).

Education and training though directly cannot combat poverty, the major malaise in the rural areas of developing world, but by developing skill on the part of individuals to increase their income, can contribute very effectively in reducing poverty. Besides, they may also facilitate better

health, reduce fertility when combined with investments in other factors of production contributing to economic growth, ultimately leading towards increased standard of living. Thus, investment in education and training along with other measures, such as sustainable land reform, or the implementation of government funded poverty alleviation programmes can really help in achieving the goal of developing an egalitarian society (Langoni, 1973; Carnoy, et al., 1978).

1.1.1. Human resources development challenges before developing countries :

With the revolution in information, biological transformation and materials sciences, training and education is becoming fundamental to the countries' national production and the way it participates in the changing international economy. The new technologies and production method offer enormous possibilities for increased agricultural and industrial output. But they depend much more than previous technologies and methods on well-trained workforce; innovative and problem-solving managerial personnel and cadres of highly trained scientists, engineers and social scientists, including some with sophisticated research skills needed to understand fully development at the frontiers of knowledge and to assess how such advances can get absorbed in the society. More than ever, a batch of trained population has become increasingly needed who can not only develop but also help in the selection and application of emerging technologies, appropriate to meet the local developmental needs. This is a challenge that confronts all economies participating in the world system. Preparing for a future marked by increasingly rapid

technology-based change means developing human resources capable of responding to change with the needed information and decision-making capability.

A good number of developing countries in the Sub-Saharan Africa as well as Afghanistan, Bangladesh and Nepal, with their primarily rural and agriculture based population are facing severe financial and human resources constraints in organising their training and education system. These low-income economies are confronted with multifarious kinds of problems ranging from difficulties in providing minimal basic education for achieving universal literacy to the development of managerial and technically skilled manpower, capable of raising the low standards of living in rural and urban areas. With very low per capita income of only around US\$200, these countries spent the lowest proportion of their GDP on education and training-and this proportion declined from 3.3 percent in 1975 to less than 3 percent in the eighties (Haddad, et.al., 1990). Trained manpower in these countries are in short supply with inadequate funds for organising training.

Thus the very nature of the problems of human resources development being faced by these countries is different from those of higher income countries.

1.1.2. Creation of training infrasturcture :

In order to strengthen and upgrade the training capacities of the least developed countries, a number of technical assistance programmes was introduced, financed by international

aid agencies as well as other developed countries. Among these areas of training, rural development as a major component of Development Administration has drawn the attention of the funding agencies. Majority of the developing countries being predominantly rural in their characteristics, their development administration activities mainly centre around the rural areas. Training in Development administration is an offshoot of public administration training, a phenomenon of post world war II. The number and variety of training institutions expanded rapidly after the war when a series of countries in Asia and Africa became independent.

The training approaches in the developing countries had undergone significant changes since they felt the need for indigenising and modernising their public administration machinery, after they became free from the colonial influence. Such felt need was transformed into political and professional conviction on the merit of training as a valid approach for transfer of knowledge and skills from the developed countries. This led to the establishment of a large number of training institutions in the countries during late 50's and early 60's under bilateral and multilateral technical assistance programme with large scale allocation of funds towards organising training in public administration (Sutton and Smith, 1975). The late 60's and early 70's witnessed the emergence of project related training activities with management inputs for more effective implementation of development projects initiated in many of the developing countries. With most of the developing countries

aid agencies as well as other developed countries. Among these areas of training, rural development as a major component of Development Administration has drawn the attention of the funding agencies. Majority of the developing countries being predominantly rural in their characteristics, their development administration activities mainly centre around the rural areas. Training in Development administration is an offshoot of public administration training, a phenomenon of post world war II. The number and variety of training institutions expanded rapidly after the war when a series of countries in Asia and Africa became independent.

The training approaches in the developing countries had undergone significant changes since they felt the need for indigenising and modernising their public administration machinery, after they became free from the colonial influence. Such felt need was transformed into political and professional conviction on the merit of training as a valid approach for transfer of knowledge and skills from the developed countries. This led to the establishment of a large number of training institutions in the countries during late 50's and early 60's under bilateral and multilateral technical assistance programme with large scale allocation of funds towards organising training in public administration (Sutton and Smith, 1975). The late 60's and early 70's witnessed the emergence of project related training activities with management inputs for more effective implementation of development projects initiated in many of the developing countries. With most of the developing countries

attaining freedom, development projects^a were increasingly initiated as nation building activity. The concept of development administration thus emerged, which was felt to be strengthened through project related training with a strong component of management training. Since then, the institutional capacities of these countries as a whole towards training increased significantly over the past few decades. The 1980 Directory of Management and Administrative Institutes prepared by the ILO listed 236 Development Administration Training Institutes in 91 countries (ILO, 1981). A significant feature of such institutes in the developing countries is that, they came mostly under the government initiative by bearing major share of institution building cost. The number of persons getting trained in these institutes increased considerably during the last two decades. This increased prioritisation of training resulted into tremendous increase in faculty capabilities in the developing countries. (Paul, 1983).

1.1.3. Types of training and training institutes :

Most of these Development Administration training activities in these countries can be categorised into four major types : (a) pre-entry training (PET); (b) inservice training (IST); (c) project related training (PRT); and (d) self-development. PET refers to the training offered to persons prior to their formal entry into the public service. In some cases, however, PRT may follow immediately after their recruitment, but preferably before they are placed in their job situation. IST refers to the training given to persons at different stages in their careers

after getting inducted into the service. The target groups of both PET and IST are usually all public servants. Project-related training (PRT) on the other hand, focuses on the training requirements of all personnel in a given development project. Self development (SD) refers to organised efforts to support individual training, through the facilities available outside the government training systems. Thus, public servants may be encouraged to undergo specialised training in certain useful subjects at a university.

There are four categories of Development Administration Management Training Institutes which cater to the needs of the developing countries. They are : (1) institutes directly under the government, primarily engaged in non-degree training programmes; (2) autonomous institutes; (3) universities offering education and training; and (4) management institutes offering programmes in Development Administration (ILO, 1981). Many of these Institutes coming under each of the four categories offer programmes relevant to the fields of rural development administration management. Table 1.1. provides an account of typology of such institutes catering to the rural development training requirements of third world countries (APDC, 1975; World Bank, 1982; UN, 1982; Raksasatayas and Fredericks, 1978; Paul, 1983).

Table 1.1.: Typology of Training Institutes Catering to the Requirements of Rural Development

Sl. NO.	Category	Types of Training	Target Group	Nature of Professional Staff
1.	Civil Service Training Academy	Capsule Courses on Rural Development in PET and IST	New recruits to public services; Mid and Senior level government functionaries	Experienced civil servants and academic trainers
2.	Autonomous Institutes of Development Administration	Mostly IST; some PET classroom training and field project	Mid level personnel in govt. departments	Permanent academic faculties and visiting practitioners
3.	Management Training Institutes	PET, IST and PRT	Employment seekers in rural development; Mid and senior level personnel from Govt/autonomous organisations.	Permanent academic staff and visiting professionals
4.	Sectoral Training Institutes	IST, PRT	Mid and Upper level personnel from Government or Project Personnel	Academicians and practicing sectoral administrators
5.	Regional/Inter-governmental Institutes	Mostly IST	Senior/Mid level functionaries at national level	Academic faculties on deputation
6.	Universities dealing with subjects related to rural development	Most PET (Degree/Diploma) part time IST	Students and midlevel managers (technocrats)	Permanent academic faculty and visiting faculty

1.2. National Priorities for Rural Development Training and BARD

During the last two decades, the Government actively considered the need for fulfilling the country's need for trained manpower towards the attainment of socio-economic development. Rural development has been viewed as a facet of public administration training. Training the officers of the development administration in the problems and process of rural development has been an important national policy right from the beginning of planned development. The first five year plan visualised a series of measures to develop the required human resources in the country to take care of the demands of development

administration. They were : (i) establishment of national training council at the highest level which was supposed to (a) lay down policies on training, (b) design, coordinate and implement a comprehensive programme of training, fulfilling the needs within the country and abroad over the time horizon, (c) determine training contents and curriculum, (d) evaluate and coordinate the activities of all training institutions and design their training load, and (e) follow up the efficiency and performance of the participants. The council would also take care of research in public administration and education and would suggest measures for providing consultancy services to the institutions; (ii) designing of crash programmes for the orientation of the senior officials; (iii) setting up of an academy for administration to provide pre-entry training which would be supplemented by Bangladesh Academy of Rural Development (BARD), Bangladesh Institute of Development Economics (BIDE) and the universities; (iv) establishment of an administrative staff college, to offer advanced training to the senior officials covering policy issues and matters of administration; (v) linking the programmes of the Civil Servants Training Academy with those of the national Institute of Public Administration (NIPA), Gazetted Officers Training Academy (GOTA) and Staff Training Institute (STI) by adequate administrative arrangements; and (vi) equipping NIPA with facilities to offer inservice training. The STI would be reasonably strengthened. In addition, some peripatetic centres would be introduced to support the staff development programme of the Government (Planning Commission, 1973).

The Bangladesh Academy of Rural Development during the first five year plan was recognised as the pioneer institute to cater to the needs of training the officers connected with development administration activities of the Government. It was particularly made responsible for meeting the training, research and evaluation requirements of Integrated Rural development Programme (IRDP) and Rural Works Programme (RWP). A few other institutions like the NIPA, GOTA, Local Government Institute (LGI) meant primarily for training in public administration were also made responsible for training personnel in rural works, rural administration and rural institutions. (Khan, 1977). Subsequently a number of other institutions like Rural Development Academy (RDA), Rural Development Training Institute (RDTI), Co-operative college with its zonal institutes also started training activities in rural development .

During the second plan period, with the reorganisation of local bodies, one major focus of rural development training in Bangladesh was on meeting the training requirements of the local government representatives, both officials and non-officials at various levels. (Planning Commission, 1980).

The emphasis during third five year plan shifted to poverty alleviation. Rural institutions were conceived not only as a vehicle for accelerating agricultural production but also promote the interest of the rural poor. The BRDB entrusted with the responsibility of expanding the network of rural development institutions, created BSS, MBSS, besides the existing KSS in the

rural Bangladesh. The third five year plan emphasized on training for production and employment generation, in view of its priority on poverty alleviation. Training women towards gainful employment attained special importance during the plan period. (Planning Commission, 1985).

While emphasis on poverty alleviation has been kept the major focus during fourth five year plan also, increased production and employment generation programmes would be attempted through extension of irrigation, crop diversification and infrastructure development. The rural poor programme has been conceived as a package of institution building, technology and training, credit, inputs and marketing. Training in rural development like other public administration fields will strive for increasing the capability of the personnel in "managing" the market economy. Besides improving their role as catalytic agency and their ability to integrate sector based planning with group based planning, particular emphasis has been placed on field oriented action training programme increasing the interactions between the public officials and the people in all such trainings. The fourth plan period also have set the target of clearing the backlog foundation training of Civil Service functionaries of various cadres through mobilising training support from various institutions. Fourth plan attached more importance on effectiveness of training rather than on number of persons trained. Hence provision has been kept during the plan period to evaluate the existing institutions, their facilities

and capacities and training clientele. (Planning Commission, 1990).

1.2.1. BARD as the major rural development training institute :

The Bangladesh Academy for Rural Development (BARD) was established in 1959 at Comilla as one of the two Academies in the then Pakistan to cater to the training needs of the field level officers working in the Village Agricultural and Industrial Development (V-AID) Programme and carry out research in rural development. Since then, it has emerged as a premier institute by virtue of its integrated approach of training, research, extension education and pilot experimentation to solve the problems of rural development. The Academy's research attempts through pilot experimentation fructified into a series of replicable models of rural development which generated multi-level training requirements to orient the functionaries with the management mechanisms. Its outreach efforts through extension education on the other hand, helped in identification of new areas of research and experimentation. In this way, a symbiotic relationship developed between the various activities of the Academy. As a result of such integrated action, the Academy came into limelight at national and international levels with its views and experiences being widely sought and quoted while formulating new programmes of action.

The Academy's major training activities till recent past, were rooted in its efforts of experimentation, culminating into prescription of models for replication. Out of 31 experimental projects in the last three decades, five have already been

adopted by the government for nationwide replication and six for replication in selected areas. But frequent political changes in Bangladesh did not allow any particular institutional structure for rural development to become permanent. As the rural development models' sustainability largely depended on the institutional delivery system, they lost their significance alongwith every such change in the structure adopted by successive political regimes. Secondly, the relative vacuum in which the Academy initiated its model building endeavour has by now been filled up with a multiplicity of government and non-government organisations engaged in developmental activities in their respective spheres, mostly funded by different donor agencies with varying mandate and methodology. Many of these agencies have established capabilities for training their own personnel. Finally, with the handing over of the responsibilities of replication of the rural development models to the respective agencies and completion of orienting their personnel on the management dimensions, the training requirement is stated to be saturated with the need for retraining not being felt by the implementing agencies.

All these factors have significantly changed the scenario of rural development in Bangladesh. Hence the Academy with one of its major mandate of providing training support to rural development process also needs to review its training strategy to formulate a pragmatic and need based plan for training.

1.3. Training Plan - Systems Perspective

1.3.1. In search of conceptual clarity

The training system design provides a model for a training operation which can fulfill its functions under any organisational circumstances. It provides a structure for identifying training needs and for creating, developing, presenting and evaluating specific training actions. The system design also defines the operating entities which will assume the functions of the training sub-system elements. Although, each element of the training sub-system must function effectively for the system to work, the analysis element is the key to the success of specific training actions. Definition of the mission of the training action, the training plan, is the primary task of the analysis element, once it has made the decision that a training action is required. If its decision is otherwise, its task is to make alternative recommendations. The training plan consists of eight parts : problem definition, need identifications, establishment of performance standards, trainee identification, establishment of training criteria, cost estimation, estimation of return on investment and scheduling. (Warren, 1969).

Development of a training plan and proposal requires considerable data gathering and analysis. The primary value of this kind of intensive investigation and analysis would be obvious, if all performance problems brought to the attention of a typical training operation were in themselves significant. Unfortunately, this is not always true. Requests for rapid visit programmes, personality improvement programmes, and the like,

plus the wide range of attitude - change and orientation programmes can make this initial analysis a very expensive part of the overall training operation. To spend valuable time investigating a large number of potential problems, the solution of which may or may not be useful, can be a significant investment resulting in the inclusion of some extremely profitable behaviour- change actions and the elimination of others which would be of little value. Such an investigation then, might reduce the number of potential training problems accepted by the training subsystem for analysis. In those cases in which the training task plan is developed and the analysis completed, the finished plan will serve several functions. First, it will provide management with the necessary data to make a decision regarding investment in a training action. This becomes more than a budgetary decision, since the training operation will use this decision as a tool to obtain organisation on system - management support for the training action once it is implemented. Simply, the training - task plan will be the means to sell management on the training action. It is therefore extremely important that the benefits brought about by a recommended training action are given in terms that management can find useful.

The training plan will also be used by the other elements in the training system in filling those parts of their missions that relate to the proposed training task. The development element will use criteria and recommendations about methods to develop their instructional design materials; the operation's

element will use the estimates of cost and schedules to set up their overall operating plan. Within the organisation, the criteria will be used for evaluation, as will the standards established. The development of performance standards and task models and the task analysis that is done may be useful to the management of the system in which training is taking place.

The training plan, thus will be the central input document from which all further efforts in the training task will be taken. Therefore, the investment made in the development of an accurate and complete training plan will be measurable at several points within the organisation. (Warren, 1969).

1.3.2. Training plan for BARD - a sequential process :

In order to formulate a pragmatic training plan for any organisation, one should follow a logical sequence for translating the mandatory activities into specific training actions which should be continuously evaluated. The following are the steps in such process :

The Mandate:

Every organisation is established with a set of mandate which it strives to achieve by undertaking various kinds of activities. The Academy also has been entrusted with a series of mandatory functions stated in "The Bangladesh Academy for Rural Development Ordinance, 1986" as follows :

- (a) to conduct research in rural development and allied fields;
- (b) to provide training to government officials and others concerned with rural development;

- (c) to test and experiment on concepts and theories of development;
- (d) to evaluate the programmes and activities relating to rural development;
- (e) to provide advisory and consultative services to the Government and other agencies;
- (f) to guide and supervise students, national and foreign, in their dissertation work;
- (g) to arrange and conduct national and international seminars, conferences and workshops;
- (h) to help policy planners in the field of rural development.

While formulating the training plan of an Academy like BARD engaged in carrying out such interrelated but multiple functions, they need to be analysed from a systems perspective. (Fig. 1) Actually the training plan can be conceptualised as one of the steps in translating the mandatory functions into concerted actions.

Focus :

It can be worked out methodically only when it is built upon a careful analysis of the focus, which in the case of an Academy serving to the cause of a complex process like rural development, is greatly influenced by a series of endogenous and exogenous factors. Endogenous factors emanate from within the organisation like its internal prioritisation, capability or experience of the faculty, direction provided by the leadership or even the perception of the faculty members regarding 'strength-weaknesses-opportunities-threats' of the organisation and so on and so forth. Exogenous factors, influencing the focus on the other hand, act from outside the organisation, which are generally

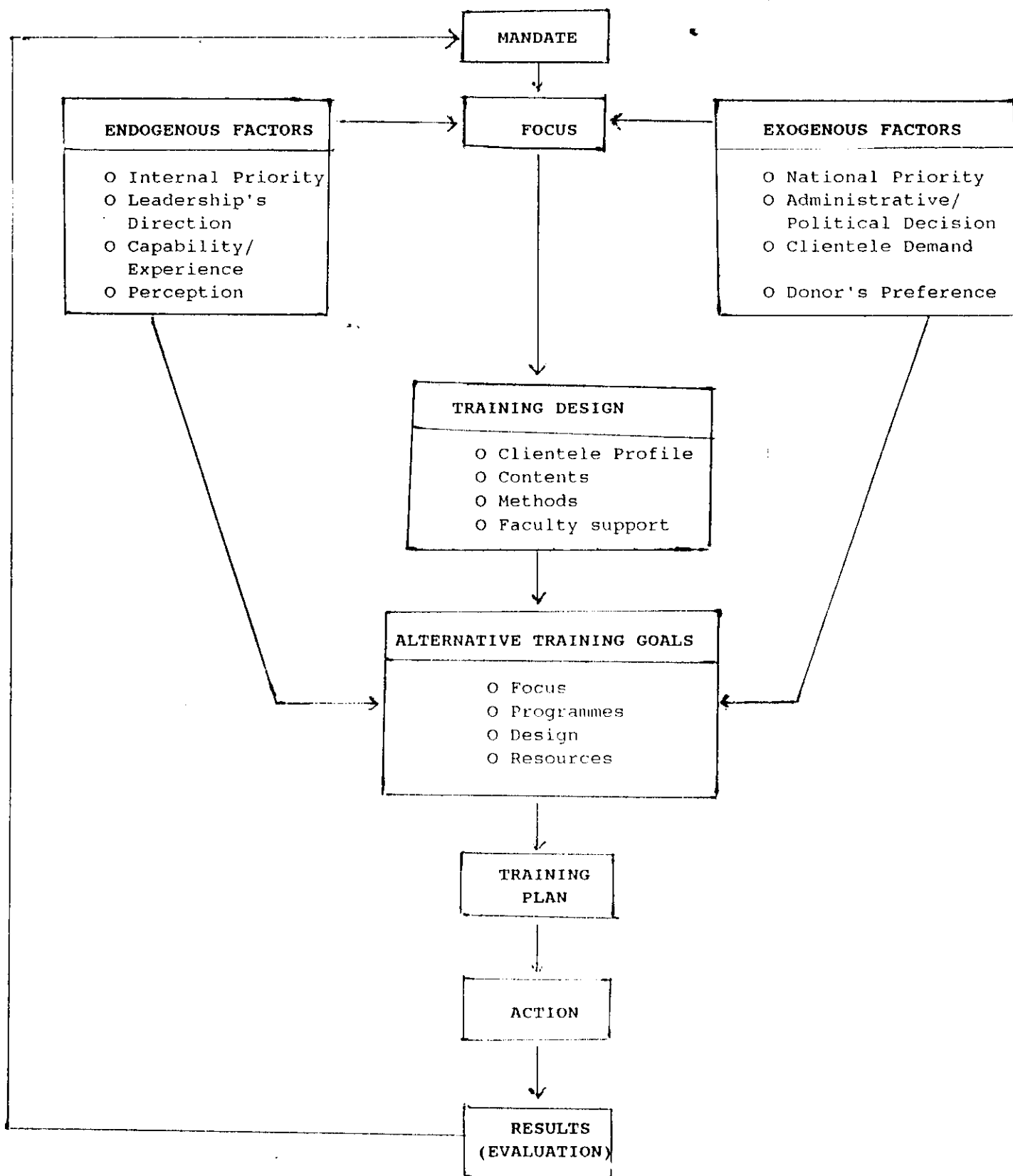


Fig. 1 TRAINING PLAN : A SYSTEMS PERSPECTIVE

manifested through the national priorities, administrative/ political decisions, demands of the clientele organisation as well as donor's preference etc. In view of the symbiotic relationship between training, research including action research functions, it is important to decide on the overall focus of the Academy, first towards the achievement of the mandate. Once it is decided, the research and training focus can be framed contributing to the overall focus of the Academy. However, as stated earlier, the focus of the Academy as well as the training and research functions keep on changing along with the variations in the endogenous and exogenous factors. Thus, it is important to decide on the training focus in line with the overall focus of the Academy. The training focus thus decided, influences the various components of training design, like clientele, contents, methods etc.

Alternative Training Goals :

In order to arrive at the training plan, it is then necessary to decide on the alternative training goals, both short term as well as long term in respect of types of programmes to be offered, training design to be adopted, utilisation pattern of training resources both physical as well as faculty and so on and so forth.

Training Plan :

In order to formulate a pragmatic training plan, definition of appropriate training goals, both short term and long term is of utmost importance. The training plan is really a detailed

account of how to achieve the goals set. The plan thus formulated will be implemented to produce the anticipated results which need to be continuously evaluated. The results of evaluation has to be carefully analysed and weighed against the mandate set for the organisation.

1.4. Review of Focus of the Academy

The Academy primarily aims at fulfilling the first three functions- research, training and action research, which really influence the rest of the mandatory areas. Thus, attempt has been made to understand the focus of the Academy, by analysing the focus of these three basic functions individually and to identify the commonality among them. While doing so, the research and action research projects undertaken so far, were categorised into certain thematic areas and the training programmes classified according to their coverage and clientele. The concentration of these categories were analysed according to the periods during these three decades. Obviously, in doing so, the underlying assumption was that it should be possible to understand the points of interdependence among the three mandatory activities during all these years, thereby enabling us to identify the focus. For the purpose of comparability, the time horizons were kept variable depending upon the shift in focus in all the three areas of activities.

1.4.1. Research focus

In order to identify the research focus, all the major 270 completed research projects were taken into consideration for

content analysis. As a result of such content analysis it was possible to identify ten major thematic areas. They were: (1) Productivity (2) Institution Building (3) Human Resource Development (4) Transfer of Technology/Extension (5) Development Communication (6) Poverty Alleviation (7) Village Studies (8) Agrarian Reform (9) Women Development, and (10) Environment. The projects which could not be matched with any of the ten thematic areas were put into the miscellaneous category.

Table 1.2. clearly revealed that the research focus on productivity related issues, so very evident during the period of experimentation of Comilla model, gradually died down in recent period. Although, the productivity increase through extension of irrigation and crop diversification still remain the national priority, the research activities no longer addresses these issues.

'Institution building', another important area of research focus remained in the limelight almost uniformly, till 1988. While during sixties and early seventies, emphasis was on cooperative based institutional structure, the late seventies and eighties was marked with government efforts of reorganising the local government institutions into upazila system. The research focus revolved around these areas of institution building. But subsequently, this area also lost such sharpness of focus. However, evolving appropriate institutional structure for rural development, continues to be the major issue before the policymakers even today, though the research focus of the academy had already shifted from such issues.

content analysis. As a result of such content analysis it was possible to identify ten major thematic areas. They were: (1) Productivity (2) Institution Building (3) Human Resource Development (4) Transfer of Technology/Extension (5) Development Communication (6) Poverty Alleviation (7) Village Studies (8) Agrarian Reform (9) Women Development, and (10) Environment. The projects which could not be matched with any of the ten thematic areas were put into the miscellaneous category.

Table 1.2. clearly revealed that the research focus on productivity related issues, so very evident during the period of experimentation of Comilla model, gradually died down in recent period. Although, the productivity increase through extension of irrigation and crop diversification still remain the national priority, the research activities no longer addresses these issues.

'Institution building', another important area of research focus remained in the limelight almost uniformly, till 1988. While during sixties and early seventies, emphasis was on cooperative based institutional structure, the late seventies and eighties was marked with government efforts of reorganising the local government institutions into upazila system. The research focus revolved around these areas of institution building. But subsequently, this area also lost such sharpness of focus. However, evolving appropriate institutional structure for rural development, continues to be the major issue before the policymakers even today, though the research focus of the academy had already shifted from such issues.

Table 1.2 : Thematic Distribution of Major Completed Research Projects

Thematic Areas of Research Studies	NO. OF RESEARCH PROJECTS DURING PERIOD									
	1960-73		1973-88		1988-91		Total		Grand total	
	S		T	U	D	Y	A	R	E	A
	Within greater Comilla	Out side greater Comilla	Within greater Comilla	Out side greater Comilla	Within greater Comilla	Out side greater Comilla	Within greater Comilla	Out side greater Comilla	Within greater Comilla	Out side greater Comilla
1. PRODUCTIVITY (Crop survey; Seed multiplication; Use of tech; Irrigation & mechanisation; Livestock; Vegetables)	47 (37.90)	-	24 (22.02)	-	4 (10.80)	-	75 (27.78)	-	75 (27.70)	
2. INSTITUTION BUILDING (Comilla Cooperative model; Cooperative farming; Local govt.; Institutional structure; Leadership)	42 (33.87)	-	27 (24.77)	7 (6.42)	1 (2.70)	2 (5.41)	73 (27.04)	6 (2.22)	79 (29.26)	
3. HUMAN RESOURCE DEVELOPMENT (Education, Health, Family Planning & Training)	13 (10.48)	-	10 (9.17)	4 (3.67)	10 (27.03)	1 (2.70)	33 (12.22)	5 (1.85)	38 (14.07)	
4. TRANSFER OF TECHNOLOGY	8 (6.45)	-	5 (4.59)	-	-	1 (2.70)	14 (5.19)	-	14 (5.19)	
5. DEVELOPMENT COMMUNICATION	9 (7.26)	-	3 (2.75)	-	-	-	12 (4.44)	-	12 (4.44)	
6. POVERTY ALLEVIATION	-	-	6 (5.50)	-	-	1 (2.70)	6 (2.22)	1 (0.37)	7 (2.39)	
7. VILLAGE STUDIES	1 (0.81)	-	2 (1.83)	2 (1.83)	-	-	3 (1.11)	2 (0.74)	5 (1.85)	

Contd. to page 25

Thematic Areas of Research Studies	NO. OF RESEARCH PROJECTS DURING PERIOD									
	1960-73		1973-88		1988-91		Total		Grand total	
	S		T		U		D		Y	
	A		R		E		A			
	Within greater Comilla	Out side greater Comilla	Within greater Comilla	Out side greater Comilla	Within greater Comilla	Out side greater Comilla	Within greater Comilla	Out side greater Comilla	Within greater Comilla	Out side greater Comilla
8. AGRARIAN REFORM	-	-	7 (6.42)	-	1 (2.70)	8 (2.96)	-	-	8 (2.96)	-
9. WOMEN DEVELOPMENT	1 (0.81)	-	4 (3.67)	-	5 (13.51)	7 (18.92)	10 (13.70)	7 (2.59)	17 (6.29)	-
10. ENVIRONMENT	-	-	1 (0.92)	-	1 (2.70)	-	2 (0.74)	-	2 (0.74)	-
11. MISCELLANEOUS	3 (2.42)	-	7 (6.42)	-	3 (8.11)	-	13 (4.81)	-	13 (4.81)	-
Total	124 (100%)		109 (100%)		37 (100%)	249 (92.22)	21 (7.78)		270 (100%)	

Figures in parenthesis indicate percentages

'Human Resources Development', the third important thematic area, examining the issues related to education, family planning, health etc., received almost similar attention in the academy's research agenda till 1988. But since then, there has been significant increase in number of research projects taken up in this thematic area. Almost 30 percent of the projects completed during 1988-91, covered issues pertaining to human resources development in rural areas.

Other thematic areas receiving attention of the Academy, although at a much lesser scale during the initial period, were 'Transfer of Technology', and 'Development Communication', both of which lost significance in the research focus of subsequent period. It may be mentioned however, that, both these areas should have received continued attention, in view of their everincreasing importance in the recent development scenario of the third world countries.

Among the other areas, the most noteworthy attention has been focussed on 'Women Development' during recent past. Eventhough, there was scanty attention on this area till 1988, subsequently more than 32 percent of the research projects were completed covering this area.

A few thematic areas like 'Poverty Alleviation' 'Environment' and 'Agrarian Reform', though very important in respect of contemporary development scene in rural Bangladesh, did not receive any notable emphasis in the research agenda of the Academy. 'Disaster Management', 'Local Level Planning', 'Rural Industries', a few areas of topical interest and relevance to the Bangladesh condition, were never addressed by the faculty.

From the above analysis, it becomes evident that the present research agenda of the Academy lacks the decisiveness in focus, which was so much its characteristic feature during the model building era. The areas like 'Productivity' and 'Institution Building' have almost ceased to be the concern for research. 'Human Resource Development' and 'Women Development' are the

areas on which relatively more number of projects are being taken up. Some of the other areas, like 'Technology Transfer' and 'Development Communication', once pursued significantly, also have lost sight of. Many of the areas of contemporary global as well as, national interests like 'Environment', 'Disaster management', 'Rural Industries ' are being hardly studied. This hints at the need for providing a critical look at the future research agenda and balancing the concentration according to their extent of accumulated experience and importance in the national and international context. Another feature of the research activities is the abundance of studies in and around Comilla. More than 92 percent of the studies have been carried out within the precincts of greater Comilla. In order to highlight the varied agro-ecological and socio-economic issues across the country, time has come to concentrate on study areas, outside the limits of Comilla.

1.4.2. Action research focus

BARD has been nationally and internationally acclaimed mainly for its valuable contribution in the field of action research. The uniqueness of its action research efforts was exhibited through many of these outcomes becoming the models of rural development accepted by the national government for country-wide replication. In order to understand the focus of such research efforts, all the 31 projects taken up so far were classified into categories, similar to those adopted while reviewing the research focus.

**Table 1.3: Thematic Distribution of Completed and/or
Ongoing Action Research Projects**

Thematic Areas of Action Research Projects	NO. OF PROJECTS DURING P E R I O D			
	1960-73	1973-88	1984-88	Total
Productivity	4 (23.52)	3 (24.99)	-	7 (22.58)
Institution Building	7 (41.18)	2 (16.67)	1	10 (32.26)
Human Resource Development	4 (23.52)	2 (16.67)	1	7 (22.58)
Women Development	1 (5.88)	1 (8.33)	-	2 (6.45)
Development Communi- cation	1 (5.88)	1 (8.33)	-	2 (6.45)
Environment	-	1 (8.33)	-	1 (3.23)
Poverty Alleviation	-	2 (16.67)	-	2 (6.45)
Total	17 (100.00)	12 (100.00)	2 (100.00)	31 (100.00)

Figures in the parenthesis indicate percentages.

Table 1.3. almost corroborates the findings of Table 1.1. Majority of the action research projects were taken up during 1960-73 with overwhelming emphasis on 'Productivity,' 'Institution Building' and 'Human Resource Development'. But such sharpness in the focus considerably diffused in the subsequent period. Thus, both the research and action research focus of the Academy currently do not conclusively hint towards any thematic grouping of either national or global concern, which needs to be revived to enable the Academy to address to the multifarious and complex sets of issues confronting rural Bangladesh in a concerted manner.

1.4.3. Training focus

The training focus of the Academy also had undergone changes over a period of time. In fact, the Academy was initially established to meet the training requirements of the rural development functionaries. Research came later in the course to make the training more effective and practice oriented. Hence the complementarity between the two functions was inbuilt. It will be interesting to analyse the shift in training focus and try to link such changes with the various endogenous and exogenous factors.

Accordingly, attempt was made to analyse such shifts by categorising the training programmes on the basis of their focus, into different groups. Information regarding the focus, type and number of clientele, durations were collected from the Annual Reports of the Academy (BARD, 1970-`71 to 1989-`90). Training load of a particular group of courses was calculated in terms of 'Participant Training Days' by multiplying the factors, average number of participants pergroup and duration in training days. Percentages were computed for all these indicators. Table 1.4. provides a composite picture of the shift in training over the last three decades, which are presented under various categories of focus.

Table 1.4. Shift in Training Focus: Programmes, Clientele and Load

Sl. No.	Types of Courses and the clientele	P E R I O D														
		1959-'60			1961-'70			1971-'83			1984-'87			1988-'91		
		Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-
		(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)
1.	In-Service Job Training (V-AID Officers/Supervisors; Development Officers, Officials of Basic Democracy, Agrl. Officers)	514	13.14	7196	-	-	-	-	-	-	-	-	-	-	-	-
				(28.48)												
2.	Rural Development (Policymaking Officers, Development Project Officers)	121	13	1573	910	21	19110	434	105	45570	28	121	5388	-	-	-
				(6.25)			(18.28)			(14.86)			(5.06)			
3.	V-AID Orientation (Ansars, Local Leaders)	375	44	16500	135	4725	-	-	-	-	-	-	-	-	-	-
				(65.30)		(4.52)										
4.	Pre Service/Project Oriented Job training (Project Experimentation/Implementing officers, Family Planning Officers, Local Leaders, Engineers of Publicworks)	-	-	-	2017	40	80680	2685	73	196005	376	31	11656	675	30	20250
							(77.19)		(47)	(63.90)			(17.42)			(24.75)
5.	Orientation on Comilla Experiment/ Model of Rural Development (Officers from different govt. and non-govt. organisation, local leaders)	-	-	-	-	-	-	1206	54	65124	-	-	-	-	-	-
										(21.23)						
6.	Course on Welfare oriented or Poverty focussed Rural Dev. Projects (Midlevel officers/local leaders)	-	-	-	-	-	-	-	-	-	743	27	20061	294	29	8526
													(29.98)			(10.42)

Contd. to page 31

Sl. No.	Types of Courses and the clientele	P E R I O D														
		1959-'60			1961-'70			1971-'83			1984-'87			1988-'91		
		Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-	No. of Parti-	Av. Dura-
		(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)	(in days)
7.	Decentralised Administration (Upazila Dev. officers & Chairmen)	-	-	-	-	-	-	-	-	-	837	38	51806	-	-	-
													(47.53)			
8.	Foundation Courses (BCS Officers from Health, PWD and LGEB)	-	-	-	-	-	-	-	-	-	-	-	-	1080	41	44280
																(54.13)
9.	Special Certificate Courses (Mid level officers from govt. and Non-govt. organisation)	-	-	-	-	-	-	-	-	-	-	-	-	460	19	8740
																(10.68)

(Figures in parenthesis indicate percentages)

(i) Concept based rural development training :

The Academy started functioning under the banner of Pakistan Academy for Village Development. The training programmes offered by the Academy at the beginning (1959-61) were mostly based on concepts drawn from various social science disciplines to strengthen the Village Aid Programme floated by the then Government of Pakistan as a part of the basic democracy approach. The programmes were offered to the Circle Officers, Development Officers, Village Aid Supervisors and Similar functionaries working for the implementation of the programme. About 28.48 percent of the participant training days were devoted to such in-service job training programmes. But major emphasis of the

training programmes during this period, as evidenced through the total participant training days was on creation of awareness on V-AID philosophy among people from various walks of life like Ansars, local leaders, school/college teachers etc. Such wider awareness regarding the V-AID philosophy and programme were planned for their furtherance within the society at large. About 65.30 percent of participant training days were devoted towards such purpose.

(ii) Era of experimentation :

From 1962, there was a definite shift in the training approach of the Academy. As a result of conscious recognition of the inadequacy of field orientation of the training programmes, the Academy launched field action experimentations on various development approaches relevant to the conditions of the then rural East Pakistan right from 1960. With the encouraging results received from such experiments, the Government of Pakistan decided to test them for wider replication by launching several projects in various parts of the country. There was thus a huge training need created to equip the project personnel on the management techniques of the experimental projects. Accordingly, Academy's one of the major focus during 1962-69 was on providing job training to the Project Directors and Deputy Project Directors. These types of programmes were better known as 'pre-service training' (Khalid, 1987).

Simultaneously, another significant responsibility vested on the Academy was to provide rural development orientation to the

then Civil Service Officers of Pakistan and also other development departments' officials. Thus the other major focal theme of training of the Academy during this period (1962-69) was a series of foundation courses on rural development with the first hand information on various aspects of rural areas, primarily to impress upon the participants the need for tackling them for a lasting impact on the national development process. However, during this period, overwhelming emphasis was on job training courses related to the experimental projects. While 77.19 percent of the total participant training days was devoted to such courses, the extent of foundation courses was to the tune of 18.28 percent. As the government no longer backed the V-AID programme, the emphasis on its orientation training also significantly got reduced (4.52 percent) in the academy's training agenda.

(iii) Replication of Rural development Models :

During 1969-70 the results of the Academy's experimentation were consolidated into various models consisting of five interrelated programmes of infrastructure development, institution building and reorganisation of local level administration in the rural areas. The Government of Pakistan took a decision to replicate these models nationwide, by entrusting the responsibilities to different agencies. The Bangladesh Rural Development Board (erstwhile IRDP of East Pakistan), Local Government , Local Government Engineering Bureau, Family Planning directorate were entrusted with the responsibility of implementing two-tier cooperative, Thana

Training and Development Centre, Thana Irrigation and Rural Works Programmes and the Family Planning models respectively. The Academy was assigned with the responsibility of training officials of these departments in general and that of BRDB in particular who were directly involved in implementing the projects. Such programmes were in great demand during the seventies and initial period of eighties (1971-84). About 63.90 percent of the total participant training days were devoted to these kinds of pre-service or project oriented training courses addressed to the Project Officers, Engineers of Public Works Departments and Development Officers of BRDB. But alongwith the completion of first-dose of orientation training of majority of the implementing officers and with no further expansion plan of the organisation in the anvil, demand for these programmes gradually started dwindling during the later part of early eighties.

The rural development foundation courses being offered to the Civil Services officials before liberation of Bangladesh (i.e. before 1971) continued with almost similar vigor during the post liberation period also, with considerable increase in average number of participants attending each programme. About 14.86 percent of the participant training days during the same period was devoted to such courses.

Another significant trend during this period was a spurt in the demand of various government and non-government organisations to orient their personnel on by then famous Comilla

Models of rural development. The Academy conducted a large number of programmes during this period for these organisations which consumed about 21.23 percent of the total participant training days. The impact of such training efforts is even now discernible in the methodology of rural development programmes sponsored by the NGOs as well as other donor aided development projects. Thus, more than eighty five percent of the academy's training efforts during 1970-84 was devoted towards dissemination of techniques and essence of Comilla approach of rural development.

(iv) Decentralised administration - restructuring attempt:

During 1983-84, the country experienced a significant development in the context of rural development. Democratic decentralisation became a major intervention through reorganisation of local level administration with the formation of Upazila Parishads. The Academy was again required to fulfill the responsibility of orienting the officials and non-officials involved in undertaking developmental activities at Upazila level. The major thrust of these kinds of training was however felt during the initial period of 1984-87. About 47.53 percent of the total participant training days was devoted to these kinds of training programmes during the period.

With the declining demand for training of the implementing agencies like BRDB involved in replication of Comilla models of rural development (17.42 percent), the Academy had to meet the training requirements of a mixed group of clientele who could not be classified into any single category. Demands came mostly from

donor aided poverty focused (SFDP) and welfare-oriented (VCDP and Health and Nutrition) projects to impart training to their clientele on management of planning and implementation of rural development programmes with varying focus. About 29.98 percent of the total number of participant training days was devoted to these kinds of training programmes during 1984-87.

The number of total rural development foundation/capsule courses came down significantly with the changes in government's emphasis on providing such orientation as a part of the foundation training of civil services officials. Hardly 5.06 percent of the training load of the academy was devoted to such training courses during the period.

(v) Clearing the backlog of civil service foundation training:

The thrust of training on decentralised administration was considerably reduced towards the end of 1986-87 and from 1987-88 onwards the Academy had to meet the training requirements not very much connected with its mandate of rural development. At this stage, the Bangladesh Civil Service (Administration) Academy sought the assistance of various Training Institutes in the country to help them clear the backlog of their administrative foundation training of the various cadres of Civil Service Officers. The officers coming under Health, PWD and Local Government Engineering Bureau were sent to the Academy for such training. The contents of these courses were centrally designed which were altogether different from the mandate as well as previous training background of the Academy. During 1987-'90,

a significant proportion (54.13 percent) of the participant training days was devoted to these kinds of training programmes.

The Academy continued to meet the varied kinds of training requirements from mostly donor aided rural development projects implemented by non-government as well as government agencies, though at a much reduced rate from the earlier period. This happened primarily due to reduction in the total duration of such courses. From one month, the average duration of each course came down to one week.

The Academy by virtue of concentrating on the entire gamut of rural development for about three decades by this time, also launched a few special certificate courses in line with the faculties' accumulated research and action experiences. Thus the period 1987-'91 witnessed a new thrust in the training efforts of the Academy by way of introduction of these kinds of courses on its own, covering various rural development issues, independent from each other. About 10.68 percent of the participant training days was devoted to these kinds of training efforts.

During this period however, the focus on job oriented/pre-service training got revived with 24.75 percent of the participant training days being devoted to this category. Such revival was the result of introduction of a number of international agency funded poverty focused projects like RD5, RD.9, RD.12, RPP under the umbrella of BRDB's rural development programme. The personnel of such projects were sent to the

academy for orienting them primarily on Comilla approach of rural development.

Thus, the training in the Academy, which geared around institution building, had undergone progressive dilution of focus. Same are the trends in research and action research also as evidenced earlier. Such changes in focus are the result of the combined influence of a number of endogenous and exogenous factors which can be categorised under following heads :

- i) internal prioritisation
- ii) experiences of the faculty
- iii) leadership's direction
- iv) national priority
- v) administrative political considerations
- vi) clientele demand

Out of these, the first three can be considered as endogenous factors, emanating from within the organisation. The others were exogenous factors, arising out of the prevailing circumstances in the immediate environment, external to the Academy.

i) **Endogenous Factors :**

(a) Internal Prioritisation :

The priorities established by the Academy while deciding its course of actions, conclusively influenced the nature of training activities several times during the past three decades. Firstly, with the conscious recognition of making the training programmes

more pragmatic and field oriented, the Academy launched the field experimentation approach, which subsequently gave rise to huge training requirements of the project functionaries, during sixties and early seventies.

Secondly, the Academy took up a number of social welfare and poverty oriented projects like Health and Nutrition, VCDP and SFDP respectively during eighties. These projects alongwith some of the poverty alleviation projects launched by BRDB, created training requirements for the project functionaries. The Academy thus responded to such contribution of internal as well as external demands by floating appropriate training programmes.

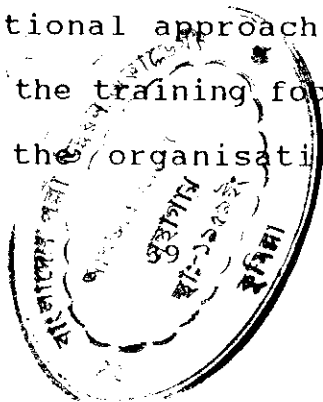
All these factors depict the internal considerations which influenced the focus of the training activities of the academy.

(b) Experience Levels of the Faculty :

The Academy launched a number of certificate courses during eighties on its own, in the line of expertise of the faculty members generated through their involvement in various relevant fields of rural development. Moreover, Comilla experimentation generated lot of experiences on the part of the faculty members which shaped the course contents accordingly.

(c) Institutiunonal Objective :

From the very beginning , the Academy under the charismatic leadership of Dr. Akhter Hameed Khan, the founder Director, adopted an institutional approach to rural development. It influenced not only the training focus but also the entire gamut of activities of the organisation. Had the Academy not



A3432

visualised the need for providing an institutional base for the then rural East Pakistan and launched experimentation, it would have been shaped in altogether different manner. The Academy's emphasis on field experimentation, not only influenced the contents of training courses but also decided the selection of training methodology which primarily depended on field observations and placements. This very institutional objective or method of work can be considered as an important endogenous factor working on the training focus.

ii) **Exogenous Factors :**

(a) National Priority :

The national priorities reflected through plans and policies of the government did influence the training focus of the Academy from time to time. The establishment of the Academy in late fifties was in response to such priority. With the introduction of Village Agricultural and Industrial Development (V-AID) programme, need was felt for an institution taking care of training support to the concerned personnel. Accordingly, the Academy launched training programmes not only for the personnel of the programme but also for various other categories like Ansars, School Teachers etc. to facilitate its wider dissemination.

During late sixties and seventies, the national priority was increased food production through institutional and infrastructural development. Thus two - tier cooperative institutions were taken as the basis for augmenting agricultural

production through infrastructure development, like 'Thana Irrigation Programme' and 'Rural Works Programme'. The Academy met the training requirements of the concerned agencies like BRDB and RWP charged with implementing the programmes (Khan, 1973). The eighties was marked with the nationwide reorganisation of the development administration by creating upazila parishads. Such reorganisation efforts also generated considerable training requirements met by the Academy through launching programmes for officials and non-officials.

Again, during late seventies and eighties, the national priority having been simultaneously refixed on poverty alleviation, the BRDB concentrated on organising cooperatives around target groups. The Academy responded to such poverty focused programmes by providing appropriate training support.

(b) Administrative/Political Considerations :

The Academy having been established basically with administrative and political considerations and being government controlled, has to respond to their decisions from time to time. Right from the V-AID days, the training focus remained concentrated always around the particular institutional structure backed by the government at any given point of time. Thus, subsequent to the V-AID programme, government's concentration on Comilla Models and later on the upazila system for channelizing development initiatives got always reflected in the Academy's major training focus, clientele and contents.

Similarly, from 1988 onwards, the Academy's concentration on general foundation training can be considered to have been influenced by administrative decision at national level to clear the backlog of such training for the BCS officers. Eventhough, the subject was not very much in line with the mandate of the Academy, it responded to such administrative decisions.

(c) Clientele Demand :

Besides the national priorities and administrative/political decisions, the Academy also responded from time to time to various types of clientele demands from both government and non-government organisations for specific programmes. Eventhough such programmes could not influence the overall training focus, since beginning, the Academy has been conducting annually, on an average, 20 percent of the training programmes on the demands of such outside agencies. Similarly, the present certificate courses, though sometimes are constrained with lukewarm response from the clientele, provides a potential opportunity to conduct courses within the mendate of the Academy. There is however a need for diversifying the certificate courses by launching appropriate programmes for relevant clientele groups hitherto uncovered through Academy's training activities.

The training activities of an Academy like BARD, which caters to the need of an important sector of development administration, have to be decided keeping in view the contemporary social and political forces, the demands from various relevant agencies and internal priorities and expertise levels of the faculty. Thus, to make the training programmes

dynamic and need based, efforts should be made not only to assess the current national programmes and policies, but also to identify training needs relevant to issues pertaining to rural development. Accordingly, faculty capability should be developed through pooling of information from various sources and launching specific research based studies. Curriculum developed on such lines are likely to become more pragmatic and need based.

Socio-economic milieu of the country and the rural development strategies of the Government have changed a lot overtime. Keeping in conformity with these changes and the consequent shift in training needs, the training focus of the Academy may concentrate on current issues of development like production and employment, women in development, human resource development, institution building, management development, environment, community health and nutrition, development communication and information. Of course, research and action-research in these thematic areas are a pre-requisite for organising effective training courses on these subjects. This is because of the unique approach followed by the Academy since beginning in which the products of research and action-research constitute the major inputs of training.

1.5. Perception of the Faculty- An Endogenous Factor

So long we have provided a factual account of the shifting training focus as well as the thematic distribution of research agenda of the Academy. They do indicate well the pattern of changing priorities overtime and also the present status in respect of the above dimensions. But activities of research and

training of an Academy like BARD is a dynamic process, which gets shaped by the actions of its faculties. BARD has got a strong fifty members multi-disciplinary faculty, committed to the task of rural development. It is this faculty which, by their more than three decades' of dedication, brought the Academy to its present international repute. The future agenda of the Academy also will be set and carried out by them only. Thus, in the process of formulation of training plan for the academy, it was felt appropriate to structure it based on a situation analysis as per their perception about various dimensions of the organisation. The faculty members' perception about the organisation's capability, in terms of the 'strengths' and 'weaknesses', the new areas of 'opportunities' before it and also the 'threats' in the form of challenges posed by the internal and external factors in achieving its task, were the dimensions considered for such analyses.

SWOT Analysis of Faculties' Perception

SWOT analysis technique, a modern management tool for analysis of situation was adopted for assimilating the perception of the faculty members. Originally evolved by the Boston Consultancy group as Business Portfolio matrix, the technique was further broadened in scope through the introduction of TOWS matrix as a conceptual framework for a systematic analysis that facilitates matching the external threats and opportunities with the internal weaknesses and strengths of the organisation. (Koontz and Weihrich, -1988). Its purpose is to identify the organisation's principal environmental opportunities, the

threats those may adversely affect it and its internal strength and weaknesses. The identification and structuring of these elements should, in turn, suggest potential strategies for the organisation, as well as furnish helpful information for evaluating alternative strategies (Gray and Smeltzer, 1989).

For applying SWOT technique in analysing perception of faculty members, the existing faculty members (from Directors to Assistant Directors) were requested to indicate their three most important perceptions regarding each of the dimensions of strengths - weaknesses - opportunities - threats in relation to the Academy. Responses were received from 27 out of 32 members available at that time, when they were approached. The responses of each faculty member was closely scrutinised and interestingly enough, it was possible to classify the open ended responses into four major organisational factors like (1) organisational tradition (responses concerning heritage, goodwill etc.); (2) organisational norms (responses concerning personnel management policy, organisational climate etc.); (3) organisational functions (responses like interventions, collaboration/linkages, output etc.) and (4) organisational resources (responses like faculty-it's size, motivation and capability; funds; infrastructure; clientele; political /administrative commitments etc.) Table 1.4. provides the highlights of such responses according to these four categories of organisational factors. It is worthwhile to mention here that the responses expressed by about 25 percent (7 in number) of the 27 faculty members were only considered for presentation in the table.

Table 1.5. revealed that the strengths of the Academy have been perceived mainly in its glorious tradition of model building through strong action research and experimentation which again formed the basis for an effective field oriented training. This has also been found while reviewing the focus of training for over last three decades. In otherwords the uniqueness of the training-research-experimentation combination, perceived to be a strength of the Academy, evolved out of such tradition. The other dimensions of strength reckoned by the faculty, relate to the organisational resources like its large sized, multi-disciplinary faculty and its very good infrastructure.

But such tradition has been perceived to have gradually withered through deteriorating research/action research or decreasing trend of action experimentation, two major activities (interventions) of the Academy. A significant proportion of faculty members (13 out of 27) perceived such weaknesses in the present level of organisational functions. Lack of linkage with various agencies working for rural development was considered to be another weakness in the organizational function. However, majority of weaknesses have been reported in respect of the organisational norms and resources. Presumably, a number of weaknesses in the qualitative aspects of the faculty, might have been influenced by the organisational norms like inconducive faculty development policy (23 out of 27 faculty members expressed various forms of inadequacies). These issues need to be looked into carefully while formulating the training plan.

Table 1.5 : SWOT Perception of Faculty Members of RARD

Organisational Factors	SWOT Perception	Responses	Frequency of faculty		
			ADs & DOs	JDs	Ds
Organisational Tradition	STRENGTHS	1. Established model/Tradition of innovative programmes	3	3	1
0 Heritage		2. Reputation	6	2	0
0 Goodwill		3. Strong action research tradition	7	3	0
		4. Field oriented training tradition	3	3	0
Organisational Norms	WEAKNESSES	1. Bureaucratisation of the Institute/ lack of autonomy/lack of freedom/ decreasing importance of faculty forum	5	4	3
0 Personnel management policy		2. Inconducive faculty development policy	17	6	0
0 Organisational climate		0 Recruitment 0 Promotion 0 Specialisation 0 Training 0 Career plan 0 Evaluation			
		3. Deteriorating interpersonal relationship	3	3	0
Organisational Functions	STRENGTH	1. Training-Research-Experimentation Combination	2	3	1
0 Interventions	WEAKNESSES	1. Lack of linkage	4	2	0
0 Collaboration/Linkage		2. Deteriorating research/action research/ decreasing trend of experimentation	11	2	0
0 Out put	OPPORTUNITIES	1. Open up/Exploit collaboration with Govt. departments/NGOs/International organisations	6	1	0
		2. Intervention in new areas			
		0 Landbased Activities (Poultry, Fisheries, Agro forestry, Integrated farming, crop diversification, Livestock)	6	8	0
		0 Regional Planning/Area Development (Local level planning, Hill area development, coastal area development, landuse planning, CVDP in all agroecological zones)	7	1	3
		0 Environment (Natural farming, Rural environment, social afforestation)	4	3	0
		0 Women in Agriculture and Rural Development	3	2	0
		0 Evaluative/Rapid research in ongoing RD projects	5	1	0
		0 Diploma/Degree in R.D	6	2	0

Contd. to page 48

Organisational Factors	SWOT Perception	Responses	Frequency of faculty		
			ADs & DDs	JDs	DS
Organisational Resource Base	STRENGTHS	1. Good infrastructure	9	4	0
		2. Committed/multidisciplinary/largesized faculty	5	4	3
0 Faculty					
0 Fund					
0 Infrastructure		1. Dearth of experienced/qualified	13	4	2
0 Clientele		faculty members/steady leadership/			
0 Political/		guidance to juniors/midlevel capability			
administrative					
Commitments	WEAKNESSES	2. Faculty's primary inclination towards	6	2	0
		commissioned/consultancy research/training			
		3. Inadequate exposure of faculty on research/	4	2	0
		training methodology			
		1. soft programmes of NGOs	8	1	1
	THREATS	2. Degrading faculty quality/ academic	8	0	3
		leadership/professional quality			
		3. Depleting clientele/resource base/	5	2	2
		absence of core clientele			
		4. Competition from various government and	5	5	1
		Non-government organisations			
		5. Depleting support of national and international	4	0	2
		organisations			

All the important opportunities for the Academy indicated by the faculty members related to the various dimensions of organisational functions, as they were mostly indicative of interventions and collaborations/linkages with organisations, working for rural development in the country. The major areas of interventions suggested were related to land based activities, regional planning, environment, women in agriculture and rural development as well as organising degree/diploma course in rural development. The another area of opportunity was perceived to be

opening up of collaboration with government, non-government and international organisations in view of their ever-increasing involvement in the fields of rural development. These opportunities, if exploited properly, will be effective in mitigating a number of 'threats' like depleting clientele base, competition from government and non-government organisations as well as depleting support of national and international organisations. Again, training plan need to take into consideration the possibilities of various areas of interventions as well as collaborations with relevant agencies.

All the 'threat' perceptions were exclusively related to the organisational resource base of the Academy-its faculty, clientele, funds potential etc. Most of these threats were indicative of a highly competitive environment, not known during the earlier period of the Academy, when it operated more or less in a vacuum. As stated earlier, for overcoming such threats, exploration of newer areas of interventions as well as collaborations are of utmost importance in course of formulation of training strategy.

An attempt has been made in table 1.6. to match the external threats and opportunities perceived by the faculty with those of internal weaknesses and strengths to indicate a few strategies for training plan formulation. Such matching can also provide valuable insight to the authorities of the academy in formulating overall management policies for the future.

Table -1.6 : SWOT Matrix of Faculty Perceptions

	<u>Strengths:</u> * Training-Research-Experiment combination * Model building experience * Strong Action Research Tradition * Field oriented Training tradition * Good infrastructure * Large sized/multidisciplinary faculty	<u>Weaknesses:</u> * Bureaucratisation of the institute * Inconducive faculty development policy * Deteriorating inter-personal relationship * Lack of linkage * Deteriorating research/ action research
<u>Opportunities</u> * Open up/exploit collaboration with govt. depts./NGOs/ international orgn. * Intervention in new areas	<u>S - O: MAXI - MAXI</u> * Training-Research-Experimentation tradition should be utilised in developing field based training programmes in new areas of interventions * Large sized/multidisciplinary faculty should be encouraged to diversify in new interdisciplinary fields * Good infrastructure may be utilised for floating training programme in new areas * The national and international organisation should be attached to collaborate in view of good infrastructure & large sized multidisciplinary faculty	<u>W - O: MINI - MAXI</u> * Faculty members should be provided chance of developing specialisation according to areas of interventions * The relative isolation of the academy should be overcome by opening up collaboration with govt./NGO/international organisations by taking up training programs as well as research projects.
<u>Threats</u> * Soft program of NGOs * Competition from other organisations * Depleting clientele base * Degrading faculty quality/academic leadership/professional quality	<u>S - T: MAXI - MINI</u> * Large/multidisciplinary faculty should be used to develop specialisation in areas of national and global interest * Depleting clientele base may be revived by launching programmes appropriate to the multi-disciplinary faculty and using good infrastructure. * Using field oriented training tradition by launching such programmes where the academy only has experience & expertise	<u>W - T: MINI - MINI</u> * Degrading faculty quality should be revived through removal of inconducive faculty development policy to help in developing career plan, specialisation etc.

Thus, the analysis of SWOT perception indicate a few very important action points for consideration, not only relevant for more effective training plan but for all other academic activities of the Academy also.

- (i) The 'research-training-action research' combination, most important strength in the organisational tradition need to be revitalised by strengthening research and action research efforts and linking training with them.
- (ii) Very good infrastucture and multidisciplinary, large sized faculty should be properly utilised for the best interest of the Academy as well as the development process of rural Bangladesh.
- (iii) In order to utilise and upgrade the faculty capability by way of creating conducive working environment, attention need to be focused on rationalising policies related, to organisational norms like recruitment, specialisation, training, promotion, career plan etc.
- (iv) More effective linkages should be established with relevant national and international organisations, who are increasingly getting involved in rural development. Opening up of such linkage and collaboration will help in widening the activity base of the Academy both interms of training and research.
- (v) It is needed to enter into new areas of interventions, which are increasingly becoming important in the national as well as global context.

1.6. Review of Training Design

The shift in training focus has resulted into corresponding changes in the training designs followed by the Academy in respect of clientele, contents, materials and methods. An attempt has been made to review such changes in the above mentioned aspects of training design.

1.6.1. Changing clientele profile:

Core groups of clientele

A perusal of Table 1.3. reveals that the core clientele group for the training programmes of the Academy till recent past had always been the groups of people involved in the institutional structure for rural development backed by the Government.

Thus during 1959-61, with the introduction of V-AID programme, the major groups of clientele (57 percent) consisted of officials directly or indirectly related to the programme. Another 35 percent of the participants, though not connected with the implementation of the programmes, represented local leaders, teachers, students and Ansars to become aware about the V-AID philosophy.

Later during 1961-'70, the major groups of clientele (66 percent) of the training programmes in the Academy consisted of development officers and local leaders charged with implementing the Comilla experimental projects, which the government decided to put to test.

After getting encouraging results from the experimental projects, the Government decided to entrust the responsibility of nationwide replication of each of these models to respective departments. Thus, the Academy during 1971-'84, got highest number of clientele from BRDB in particular, implementing two-tier cooperatives and other departments like PWD, LGEB, Family Planning Directorate etc. in General who were put in charge of

replicating Rural Works, Thana Irrigation and Family Planning programmes. Together, they constituted about 47 percent of the clientele attending training programmes at the Academy during this period. Almost equal number of participants (45 percent) representing various government and non-government organisations attended training programmes in the Academy to get themselves, oriented about Comilla models of rural development.

With the introduction of upazila parishads, the Academy's major clientele groups consisted of officials and non-officials of these local government bodies. Thus the Upazila Development officers and Chairman constituted 56 percent of the clientele attending training programmes in the Academy during 1984-87. The extent of participants attending job training programmes on Comilla models came down to only 10 percent as the fulfillment of training requirements reached near saturation and with no further plan for retraining these officials. Moreover the priority of the Government at that time also shifted from the Comilla model of rural development.

But subsequently, the core groups of clientele of the Academy have been the officers of various cadres of Civil Services, who are really not its mandatory groups. 43 percent of the total participants represented the cadres of Health, PWD and LGEB. The clientele representing agencies replicating Comilla model maintained similar decreasing trend (15 percent) during the period.

Policymaking and civil service officials

Another group of officials who have been attending training programmes, both orientation as well as capsule courses on rural development, had been the policymaking and civil services officials of the Government. However, the euphoria of the Government on rural development evidenced during 1961-'70 through nominating these officers, constituting as high as 30 percent of the total clientele, died down significantly in the later period. While during this period the orientation courses were of six weeks duration, they have now come down to capsule courses of 3-4 days' as a part of the officers' general administrative training in BCS (Administration) Academy. From 1971 onwards, the percentage of these groups of clientele came down to 8 to 10 percent.

Clientele representing various welfare and antipoverty projects :

The third major group of clientele attending training programmes in the Academy had been since 1984, groups of mainly mid-level officers and local leaders connected with implementation of donor-aided anti-poverty and welfare oriented projects. While they were constituting 24 percent of the total number of clientele of the Academy during 1984-87, their number increased to 43 percent during recent years (1987-91).

Clientele from government and non-government organisations in certificate courses

A mixed range of mid-level Officers from various government and non-government organisations constituted about 18 percent of the total clientele of the Academy during 1987-'91, attending a

number of its certificate courses, based on the accumulated research and action research experiences.

Thus, the analysis of clientele profile indicated that the Academy at present does not have any core clientele group. This in otherwords, is the result of a prevailing void in institutional structure for rural development in general. The two-tier cooperatives have lost significance with the introduction of multiple agencies in the rural system. The upazila parishads are in doldrums. A multiplicity of organisations, both government and non-government, are operating in the field with varied mandate, mostly framed in consonance with donor agencies' priorities. The percentage of clientele from the policy making and civil service officials attending the general rural development orientation/capsule courses are not exceeding 10 percent of the total. The Academy's certificate courses also did not attract many participants. All these hints towards a fresh assessment of training needs of various other agencies, whom the Academy did not reach so far. This has also been indicated in the SWOT perception of the faculty members.

1.6.2. Demands from the clientele organisations

This is an important exogenous factor influencing the decisions regarding the focus of the Academy and thereby having its implication on the formulation of training plans. In view of this, as being guided by the areas of new interventions indicated as opportunities in the SWOT perception, attempt was made to assess the demands in terms of types of programmes and their prospective clientele. Assessment of such demands bears

significance in view of the 'threat' perception of the faculty about the dwindling clientele base and also from the fact that the Academy has been devoting more than 54 percent of its present participant training days on types of programmes, neither mandatory nor sustainable for long in the immediate future. Moreover, there has also been a declining trend of demand from the traditional client organisations like BRDB, Local Government and Civil Service officials etc. Above all, a multiplicity of organisations in the country, both government and non-government are increasingly coming in competition with the Academy in respect of its traditional clientele base.

In order to examine the possibilities of broadbasing the training programmes of the academy within the framework of its mandatory functions, various nation building departments were contacted through their executive heads or their nominated representatives. Discussions were held with them in respect of their types of training requirements which could be met with the available expertise of the faculty at BARD. It was made very clear during such discussion that BARD's expertise lie not with the technical or subject matter dimensions of the area of concern of these departments, but in respect of management of their programmes in the rural areas. In fact, it got revealed during discussion that while many of these departments developed their own system of technical training, they were lacking in respect of arranging training their personnel in rural development related issues pertaining to the specific areas of concern. To facilitate increased absorption, the personnel of

various agencies require to be equipped with the techniques of securing village people's participation in planning, implementing, monitoring and evaluation of the programmes. Academy's three decades' experiences of training, research and action experimentation in rural Bangladesh generated solid information base on all the abovementioned dimensions. It was thus felt that bridging of such training gaps of those agencies working in the rural areas was very much within the capability of the Academy. This makes a case for broadbasing the present framework of training programmes. Table 1.7 is illustrative of the kinds of programmes in demand by various agencies and the number of prospective clienteles to be trained in each of them. It may however be mentioned here, that such initial indications of demands need to be further concretised in respect of formulation of need based curriculum plan in consultation with the client organisations as well as the donor agencies.

While expressing the demands for above mentioned programmes, some of the clientele organisations like Forest department, Family Planning Directorate, Directorate of Women's Affairs and Livestock Resources Directorate indicated availability of funds for sponsoring their officers. A number of other departments however expressed the need for exploring the provision of funds from donor agencies sponsoring their projects.

Besides the above mentioned specialised training programmes, the demand for foundation training courses is likely to continue. However, the present curriculum need to be replaced with modules on rural development. From the academic calendar of 1992, the

Foundation Courses offered to the Civil Service officials by the PATC will be of four months' duration, in which the Academy may offer capsule course on Rural Development for a mutually agreed duration. Similar arrangements may also be made with the National Institute of Local Government (NILG) for conducting the rural development part of their training curriculum at the Academy.

1.6.3. A look at the changing course contents

The changing training focus of the Academy also resulted into shift in the course contents from time to time. During the initial years of its establishment, the Academy was primarily offering two basic sets of modules according to its focal areas.

0 Social science based contents:

The first one was addressed to strengthen the competence of V-AID functionaries towards better implementation of the programme. A training manual was prepared for Basic Democrats containing the principles and functions of basic democracy. The contents were drawn from varied dimensions of rural development, V-AID programme, supervised credit and women's development.

The second set of modules was developed for orienting the policy makers and administrators on various aspects of rural development. Initially based on theories and concepts drawn from various social science disciplines, these modules were enriched with illustrations drawn out of the practical experiences on rural development. These modules were focussed on the theoretical aspects - approaches and strategies, problems, historical perspectives, national policies, planning, management and implementation aspects of rural development.

Table 1.7 : Demands for Training Programme - An Illustrative Account

Sl.No.	Types of Programmes	Prospective Clientele Groups	Number
1.	Extension Management	Upazila Krishi Officers	460
2.	Training of Trainers on Training Methodology	Deputy Director (Agriculture) Subject Matter Specialists and Subject Matter officers in the Directorate of Agricultural Extension	158
3.	Planning and Management of Livestock Resources	Upazila Livestock officer	460
		District Livestock officer	64
4.	Management of Transfer of Integrated Farming System Technology	Deputy Director, Joint Directors and Additional Directors in the Directorate of Livestock Resources	150
5.	Fisheries in Rural Development	Upazila Fisheries Officers	460
		Assistant Fisheries Officers	460
6.	Extension Methodology for Fish Farming	Upazila Fisheries Officers	460
		Assistant Fisheries Officers	460
7.	TOT in Community Participation for Family Planning	Upazila Family Planning Officers	460
		Assistant Family Planning Officers	460
8.	Training on Management Capability of Family Planning Centres	Family Welfare Visitors	5000
		Medical Assistant	2500
9.	Planning and Management of Income Generating Options for Rural Women	Upazila Women's Officers	186
		District Women's Affairs officers	42
10.	Leadership Development for NGOs working in Rural Women Development	Secretary and President of each Registered NGOs	1200
11.	Cooperatives in Rural Development	District cooperative officers	99
12.	Trainers Training in Financial Management of Cooperative Societies	One representative from the Managing Committee and the Accountant from each of the UDCA or UDCA	2126
13.	Forests in Rural Development	Asstt. Conservator of Forests and above in the social forestry project	150
14.	Income Generating Activities for Rural Poor	Upazila Rural Development Officers	449
		Development officers	1027

Thus the course contents during the initial years (1959-61) were primarily theoretical, drawn from available body of literature in relevant fields of social sciences, supplemented with practical information based on the then rural East Pakistan.

0 Experiment based contents

The adoption of Comilla experimental model of rural development had brought in revolutionary changes in course contents of the Academy. Aimed at equipping the project officers with preservice job training on the specific methodology of Comilla model of rural development, the course contents were primarily practical oriented with focus on increased productivity under the advocated institutional structure, based on the results obtained in the experimental projects. Theoretical inputs on the cooperative systems of various countries like Britain, France, Japan and credit systems of Denmark were always supplemented with the results obtained in organizing co-operative credit systems in the experimental projects. The practical observation based inputs on the working of Agriculture and Agricultural Extension, Thana Council, Public Works Programme were provided mainly through on the job situation. In fact, each of the participants was required to spend five out of six months in the field. The main purpose of these courses was to improve the effectiveness of the officers through direct exposure of pilot activities in Comilla.

So the contents during this period were predominantly field oriented with minimum dependence on theoretical/conceptual

inputs. Wherever such inputs were incorporated, they were invariably related to the actual project experimentation dimensions.

0 Course curriculum for replication of Comilla model

For providing pre-service job training to the functionaries of IRDP (later renamed as BRDB), charged with replication of two-tier co-operatives, appropriate curriculum was developed, based on the action/basic research findings obtained during all these years. Thus during 1970-1983, one of the two major sets of modules was composed of inputs on development concepts and factors of socio-economic and political development; cooperatives- general, legal and management issues; Comilla cooperative model; agricultural development; rural economics; rural administration; rural education and women and family planning. The duration of this course was initially retained to six months with three months each of in-the-academy theoretical exposure and field placement in selected TCCAs. However, with the rapid expansion of the IRDP(BRDB) network in subsequent period, the course content was abridged to enable the organisation to train increasing number of project personnel.

During this period, another major package of modules was offered through a series of refresher courses addressed to mainly groups of Thana level officials managing programmes like RWP and TIP, developed by the Academy as models of rural development. The major theme of these modules was the planning and management aspects of these programmes as enunciated by the academy.

0 Collaborative development of course contents - a new trend

During 1983-87 the emphasis was shifted from the training courses on Comilla models of rural development, exclusively evolved by the academy. A number of packages of course contents were developed in collaboration with outside agencies to meet the training requirements of newly introduced decentralised administration and poverty-focussed rural development like Rural Poor Programme of BRDB.

a) Curricula on decentralised administration

Two types of courses were offered on decentralised administration. One of these programmes was addressed to the non-officials like upazila chairmen for which a training manual was prepared jointly by BARD and a high powered committee appointed by the Government. The contents of this course consisted of inputs on administrative structure of upazila; organisational infrastructure for development of upazila; local level planning; development programmes for socio-economic upliftment of the people.

The other set of courses on decentralised administration was offered to the upazila officials managing development programmes at the newly introduced administrative unit. The curricula was jointly designed by the Academy, Jutland Technological Institute (JTI) of Denmark and Bangladesh Rural Advancement Committee (BRAC), a non-government organisation. The programme was sponsored under the auspices of the DANIDA assisted Noakhali Integrated Rural Development Programme (NIRDP). The important

modules were office management; time management; leadership; motivation and project management.

b) Course contents on poverty alleviation

A good number of training courses were organised for the BRDB officials implementing the Rural Poor Programme. The course contents were jointly developed by the Academy and the BRDB which consisted of modules on socio-economic conditions and rural development; rural sociology and communication; public administration and local government institution; Comilla co-operatives - its management, accounts keeping and legal aspects; agricultural development; education and social services; BRDB and its poverty-focussed programmes and research and training in rural development.

During this period, the trend of collaborative development of course contents was introduced for the first time in the Academy to make the programmes need based for the sponsoring organisations. The weightage on practical village based exposures were also considerably reduced as the modules were quite different from those developed until seventies based on Comilla models of rural development.

0 Special certificate courses developed by the Academy

Based on its accumulated experiences of research, action research and training, the Academy came out with a number of certificate courses covering various rural development issues. Such courses, framed by the Academy's faculty members, are being offered since 1986 as its own programmes. The courses are:

- i) Participatory Rural Development
- ii) Irrigation Management and Landuse Development Planning,
- iii) Research Methodology for Rural Development
- iv) Poverty Focussed Rural Development,
- v) Integrated Rural Development,
- vi) Rural Energy and Rural Industrialization,
- viii) Community Health and Nutrition.

0 Tailormade course curriculum

From 1988 onwards the Academy has been conducting courses, the curriculum of which are being designed centrally with minimum participation of its faculties. Two such categories of courses are a series of special foundation courses for different cadres of Bangladesh Civil Services and job training courses for BRDB's RD-12 projects.

(i) Special foundation courses :

These courses have been centrally designed at the instance of National Training Council and in accordance with the requirements of Public Administration Training Centre (PATC). The Academy was required to implement the programme with its faculty support, eventhough the course contents were not at all in line with their experience. The course contents are divided into three major modules consisting of Government Policies, Public Administration and Development Economics. The individual topics of these modules were almost entirely unrelated to the mandate of the Academy, eventhough these courses are currently consuming its major training load.

(ii) Job training course for BRBD's RD-12 project

During the same period, the Academy, at the instance of BRDB started organising special courses for the personnel of their project RD-12. Although the focus of this project was also on poverty alleviation, a separate training manual was developed by BRDB specifically for this particular project. There were eleven modules in all, covering inputs on rural development and participatory rural development; human development; project objectives; cooperatives and cooperative management; accountancy; trainers' training; credit operation and income generating activities. In this course the Academy's faculty had to become mainly executor with very little role to play during its designing stage, even though the subjects were very much relevant to their expertise. Incidentally, these kinds of courses are being conducted simultaneously by BARD, RDTI and RDA. Instead of dealing separately on the basis of a training manual developed by somebody else, a mechanism of coordination should be developed between these three organisations for developing course contents, training materials and execution of the programmes.

1.6.4. Training Methods

For developing an idea regarding the profile of currently used training methods in the Academy, content analysis technique was adopted on a number of selected training programmes conducted during the last three years. In all, twenty programmes were considered for this purpose, out of which 6 were Academy's own programme and the remaining 14 were sponsored by various agencies. Such mix of programmes was consciously chosen, keeping

in view the recent trend of conducting more number of the later type of programmes.

Table 1.8. presents an account of the percentages of various training methods used in these twenty courses. Out of the mix of seven different training methods used, the predominantly used one was 'Lecture' method in both Academy's own as well as sponsored programmes, with the average being 68.48 percent. In view of the relatively higher degree of utilisation of participatory methods like 'Group Discussion', 'Group Exercise', 'Field Survey', 'Field Visit' etc., the extent of use of 'Lecture' method in sponsored courses was marginally less. The use of participatory methods was hardly around twenty percent of the total sessions. The Library study/Book Review was found to be characteristic feature of BCS foundation courses which is designed centrally and hence does not really feature in the training methods followed by the Academy. The extent of use of case study, a very effective training method has been found to be hardly one percent of the total sessions. One of the reasons for such inadequate use of this method is dearth of such studies which can be used as training materials.

In order to be able to develop more of case studies to bring home the field problems of implementing the programmes, a strong support from research will be useful. To equip the faculty with more of participatory training methods, exposing them to such techniques through training in and around the country need to be thought of.

**Table 1.8 : Use of Various Kinds of Training Methods
in Selected Courses (1989-92)**

Kind of Courses	Percentage of sessions using various methods						
	Lecture	Group Discu- ssion	Group Exercise	Field Visit	Field Survey	Library study/ Book Review	Case Study
Academy's own (Total Course-6 Sessions-156)	73.65	3.23	9.65	7.04	5.17	-	1.28
Sponsored (Total Course -14 Sessions-839)	67.12	7.97	2.86	5.38	6.39	9.40	0.88
Average	68.48	7.27	3.84	5.60	6.12	7.78	0.91

1.6.5. Faculty Support:

The twenty programmes chosen for content analysis of training methods were also considered for analyzing the relative distribution of BARD's own faculty vis-a-vis, the guest faculty. The courses were being conducted with overwhelming support of the Academy's own faculty handling 83.22% of the total number of sessions. But interestingly the extent of use of the Academy's faculty in the courses of its own, was relatively less with their direct handling of about 68 percent of the sessions. On the otherhand, the Academy's faculty were found to have handled a good number of sessions in the sponsored programmes (specially in the BCS foundation courses), the subjects of which did not conform at all to their specialisation.

Table 1.9 : Distribution of Sessions Handled by BARD/Guest Faculty

Courses	Percentage of Sessions handled by	
	BARD's faculty	Guest faculty
Own course		
No. 6	106	50
No. of Sessions - 156	(67.95%)	(32.05%)
Sponsored Course		
No. 14	722	117
No. of Sessions - 839	(86.05%)	(13.95%)
Average		
No. of courses- 20	828	167
Total Sessions - 995	(83.22%)	(16.78%)

1.7. Definition of Training Goals

Analysis of shifting training focus as influenced by the exogenous and endogenous factors and the resultant training design naturally led to the future training goals to be pursued by the Academy, both in short as well as long term perspective. Such training goals were first tentatively defined in terms of the focus, programmes, training design in the form of clientele, content, methods, resources and also the organisational norms and the necessary linkages. Such tentative goals were then presented before the faculty council as it was the best forum to test their relevance under the academy's environment. The presentation was followed by a questionnaire based survey among the faculty members, who provided their specific responses about the relevance and priority to be fixed against each of these goals.

Accordingly, list of alternative training goals were finalised, attached to each for implementing them into action.

Table 1.10. List of Training Goals

Dimension	Levels of Goals	Definition of Goals
A. Training Focus		It has been felt by the Faculty and also evidenced in the analysis of shifting focus that the uniqueness of the Academy, was its integrated 'research-training-experimentation' approach, which has largely been diffused in recent past. Such integration need to be revived with following immediate and long term goals concerning the focus.
	Immediate	1. To concentrate on thematic areas like 'Productivity' '<u>Institution building</u>' and '<u>Human Resource Development</u>', pursued most by the Academy through its activities. 2. To revive the concentration on 'Technology Transfer' and 'Development Communication', which have hardly been addressed through training efforts. Consolidation of earlier research efforts and initiating renewed action for training in these areas are necessary. 3. To consolidate already available materials on <u>WID and poverty alleviation</u> related issues into specific training materials and also initiate more concerted action for training in these areas, as they are going to be the major topical areas of concern.
	Long term	1. To organise workshops and seminars on areas related to '<u>Disaster Management</u>' and '<u>Environment</u>' in order to develop current information base and also to initiate field based research projects for developing training materials with aim to concentrate on these areas through training.

Dimension	Levels of Goals	Definition of Goals
B. Training Programmes	Immediate	1. To formulate a few types of core programmes on rural development aimed at: - O BRDB functionaries by integrating two-tier cooperatives' principles with the presently adopted target group approach. - O Policy making and Civil Services Officials as the capsule course to be offered as part of their new Foundation Courses. - O Local Government department officials and non-officials as the capsule course to be offered as part of the regular curriculum at NILG. - O Mixed group of officials from government and non-government organisations, managing development programmes in the rural areas. 2. To involve the ministry of LGRD, BRDB, BCS (Administration) Academy, PATC and NILG at the highest levels for institutionalizing the arrangements for deputing the officers to HARD. 3. To broadbase the present structure of the certificate courses by formulating specialised courses in consultation with the concerned agencies. 4. To negotiate with the concerned agencies for identifying those specialised programmes for which immediate funds provision is available and launch them. 5. To conduct workshops, seminars and conferences on contemporary national issues, so as to effectively perform the role of think-tank for the government in deciding its policy on rural development.

Dimension	Levels of Goals	Definition of Goals
C. Contents	Medium term	1. To negotiate with the concerned agencies and their donors to secure sponsorship for rest of the programmes for which funds are to be explored and launching them from time to time. 2. To consolidate the experiences of the core and specialised programmes and facilitating needed revision. 3. To launch regional courses on accumulated experiences for the Asia-Pacific and African Countries. 4. Evaluating the demand for degree/diploma programmes by identifying clientele groups and formulation of course curriculum.
	Long term	1. Launching of Degree/Diploma programme in Rural Development.
	Immediate	1. To formulate different sets of modules for core courses appropriate to the requirements of the concerned clientele organisations in consultation with them. 2. To revise the existing certificate courses' contents in line with the demands of the potential clientele organisation, wherever needed.
	Medium term	1. To consolidate the contents and experiences of the core and specialised courses to take them as basis for curriculum planning for degree/diploma course on Rural Development. 2. To hold Curriculum Planning Workshop for formulating the contents of Degree/ Diploma programmes. 3. To develop contents of remaining specialised courses on getting positive responses from the clientele as well as donor organisations regarding funds provision.

Dimension	Levels of Goals	Definition of Goals
D. Clientele	Long term	1. Finalisation of course curriculum for Degree/ Diploma course on Rural Development.
	Immediate	The clientele for the programmes will consist of the following categories. 1. Core Clientele: BRDB functionaries; civil services and Policy making officials; Local government officials and non-officials and officials from various nation building departments 2. Specialised Clientele : Officials managing various development programmes (productivity, institution building and human resource development related) at upazila levels and above; representatives from the local institutions; NGO representatives working with development programmes like Family planning, Women's Affairs etc.
	Long term	The prospective clientele for Degree/ Diploma programmes on rural development may consist of the following categories. 1. Mid level Officers from various government and non-government organisations. 2. Unemployed graduates looking for rural development as their career. However their selection will be subject to their sponsorship by specific funding agency.
E. Training Materials and Methods	Immediate	1. To motivate and guide faculty members to increasingly use visuals and experiential techniques for more effective communication in the training sessions.

Dimension	Levels of Goals	Definition of Goals
		2. To consolidate the available training materials like case studies. Illustrations, simulation exercise for immediate use in training programmes currently being conducted. They may even be collected from relevant organisations, if found to be appropriate. 3. To collect available training materials in the form of video cassettes, films etc. on relevant topics of rural development from various sources. 4. To utilise the RRA technique to develop case studies on the ongoing programmes, currently under coverage in the existing training programmes.
	Medium term	1. To allocate specific tasks to the faculty members to develop case studies through research on various issues related to the thematic coverages of the training programmes.
	Long term	1. To develop the Academy's own resources of training materials like video cassettes, slides cum tape presentations etc. on selected thematic areas of rural development. 2. To develop the Academy's own compilation of case materials and constant updating of the same.
F. Resource Utilisation:		
Immediate BARD Faculty		1. To develop faculty groupings on specific themes to be covered by the Academy. Faculty members should be asked to opt for one or two particular thematic areas of coverage for consolidating experiences in respect of his/her relevant fields of specialisation for developing training / information materials

Dimension	Levels of Goals	Definition of Goals
		(For e.g. a group of faculty members choosing WID, may concentrate on sociological, technological, income generation, legal aspects, depending upon each of their specialisation).
		2. To identify training institutes in and around the country, offering training in training methodologies with special reference to participatory techniques.
	Medium term	1. To organise phasewise training of faculty members in such institutes on participatory training methodology.
	Long term	1. To develop the faculties as repository of information on particular thematic areas, which may be compiled from time to time by the Academy to come out with policy guidelines for the government.
G. Resource Utilisation: Guest Faculty	Immediate	1. To maintain and update an inventory of resource persons on various specialised areas from within the country, capable of handling various sessions relevant to the training agenda of the Academy.
		2. To keep the share of sessions to be handled by Guest Faculty to the maximum of 50 percent of total in any particular course, when it is introduced for the first time.
	Long term	1. To minimise the use of resource persons to 20 percent of the sessions in any course being organised at the Academy for five consecutive years.

Dimension	Levels of Goals	Definition of Goals
H. Resource Utilisation: Funds		The question of organising training programmes rests upon the possibility of mobilising funds for the same. The Academy's major sources of funds for training are the sponsoring organisations, with limited funding by the ministry of LGRD. The following goals are of relevance in case of sorting out the provisions of funds.
	Immediate	1. To approach the ministry of LGRD to enhance their budget allocation to the Academy for training, so that it can float at least 50 percent of the programmes on its own. 2. To rationalise the procedure for deciding the course fees to be charged from specially the Government agencies, preferably on 'no profit-no loss' basis.
	Long Term	1. To explore the possibility of entering into longterm agreement of meeting the entire training requirements of specific cadres of organisations, who expressed such demands.
I. Organisational Norms	Immediate	1. To encourage the practice of allocating training responsibility (both interms of programmes and sessions) to the faculty members on the basis of their specialisation and contribution in the particular thematic grouping. 2. To introduce a mechanism of panel for deciding on the course coordinator for the training programmes of general nature. 3. To organise training of faculty members (both incountry and abroad) in line with their subject as well as job specialisation in the Academy.

Dimension	Levels of Goals	Definition of Goals
I. Training	Short Term	4. To allow a faculty member uninterrupted acquisition of expertise of training, research, action research in the particular field of specialisation, to help his/her career planning. 5. To encourage greater extent of team approach in carrying out the action research projects, wherein the members should be drawn from the faculty, according to their specialisation, for further utilisation of the knowledge through training and research.
	Medium Term	1. To revise the recruitment rules for the faculty posts to be filled up in future by taking into account the thematic focal areas for rationalisation of faculty distribution as per their specialisation.
	Longterm	1. To make the faculty forum more functional in deciding on the items of general interest. (for e.g. items like selection of faculty for training abroad; allocation of training/research responsibilities etc.). This will encourage participation of faculty members in decision making.
J. Linkage	Immediate	1. To evolve mechanism of regular dialogue with the relevant ministries in the Government and other connected institutes. 2. To evolve mechanism of coordination of training efforts between institutes offering similar nature programmes. [Example: BARD, RDTI, and RDA organise training for BRDB's Rural Poor Programme (like RD12) on the basis of a centrally designed curriculum, in which none of these institutes has any significant role. Instead, a core group may be formed with relevant representatives from each institute, who will be

Dimension	Levels of Goals	Definition of Goals
		responsible for designing the course, developing training materials and also providing respective inputs wherever the programme is conducted. A steering committee may be formed with the DG (BRDB) and the heads of the three institutes].

1.8. Review and Upgrading of Present Training Curricula

Presently BARD has been conducting a number of certificate courses and rural development orientation programmes on its own initiative. The other categories of programmes follow contents either collaboratively developed or tailor-made, to suit the specific requirements of the sponsoring agencies.

In the backdrop of such situation, the task related to the upgradation of present training curricula was performed around those courses whose contents have been developed by the Academy. Thus, the contents of ten certificate courses and one course on Rural Development were considered for upgradation.

1.8.1. Strategy

The task of review and upgradation of present training curricula was undertaken in stages as mentioned below :-

- (1) The courses conducted on Academy's own initiative since 1987, were listed out by reviewing the reports of Annual Planning Conference of each year.

- (2) The contents of these courses were identified by way of referring to the course brochures (wherever available) and also the time tables followed during all these years.
- (3) Each of the course completion reports prepared by respective Course Directors for all these years were also reviewed to find out the comments made by the participants on adequacy of the topics and time frame and suggestions for new incorporations.
- (4) The topics thus consolidated and the comments for their modification from the participants were then considered for finalisation of the list of contents.
- (5) Each of the contents were then incorporated into modules by following a logical sequence.
- (6) The course curriculum thus defined were circulated among the Directors of various divisions of the academy. their suggestions were duly incorporated and the curriculum were finalised. The revised and upgraded curricula are presented below:

1.8.2. Revised Curricula

1. RESEARCH METHODOLOGY FOR RURAL DEVELOPMENT

1. Rural Social Research and Research Methodology :

Concept of rural social research; Typology of socio-economic research relevant to rural development; Need for applying research methodology for rural social research; Research and

evaluative research - characteristic features and application in rural development.

2. Formulation of Research Design :

Selection of research topics; Delineation of research objectives and formulation of working hypotheses; Literature survey and review; Decision on the conceptual framework; Selection of samples; Selection of tools for data collection; Methods of data collection; Statistical analysis; Budget and time scheduling .

3. Review of Literature and Developing Conceptual Framework :

Referencing; Logical sequencing and presentation of references; Developing conceptual framework showing interrelation between major variables selected.

4. Sampling :

Concept and types of sampling; Various Sampling procedures - Simple, stratified, multistage sampling.

5. Data Collection Tools :

Various types of devices; Questionnaire, Schedules, Checklists etc.; Scaling techniques; Pretesting; Reliability and validity of data collection tools; Finalisation of tools for data collection.

6. Methods of Data Collection:

Sources of data - primary and secondary sources of information; Data collection techniques - interview, observation (participant and non-participant), mailed questionnaire,

distributed questionnaire etc.; Rapid Rural Appraisal/Participatory Rural Appraisal.

7. Data Processing :

Coding; Tabulation; One and two-way classification; Preparation of dummy table, Scattered diagram, frequency polygon and curve etc.

8. Data Analysis :

Statistical terms and symbols; Measures of central tendency - mean, median, mode; Measures of dispersion - mean deviation, standard deviation; test of hypothesis - 'Z' test, 'F' test, 'Y' test, chi-square and confidence interval; Correlation and Regression - simple; multiple, partial and rank difference correlation; Time series analysis; Gini coefficient; Analysis of variance; Elementary knowledge of computer and its application in various aspects of rural social research.

9. Report Writing :

Organisation of the contents into chapterisation scheme - Introduction; Review of literature; conceptual framework; working hypotheses; Research setting; Methodology; Results (interpretation of statistical results) and Discussion; Summary conclusion and recommendation; Bibliography.

Duration : 4 weeks.

2. RURAL ADMINISTRATION IN BANGLADESH

1. Rural Administration : Concept and Principles :

Concept and principles of welfare state and role of development administration; Nature and concept of rural development and rural administration; Scope and functions of

rural administration in the overall framework of national government in Bangladesh.

2. Rural Administration - Institutional Structure :

Evolution of institutional structure and management of rural administration in Bangladesh - Basic Democracy, Union Parishad, Thana Training and Development Centre (TTDC), Gram Sarkar and Upazila Parishads; Rural power structure and its influence on the rural administration; Organisation of transferred and retained subjects at upazila/thana level - regulatory and development functions; Management of cooperatives, the economic institutions for rural administration - primary cooperatives, central cooperatives (UCCA) and Central Cooperative Bank (CCBs); Cooperative infrastructure under the management of BRDB and Registrar of Cooperative Societies - structure and functions; Organising poor through rural administration.

3. Management of Development through Rural Administration :

3.1. Managing Rural Administration : Land Administration
- Land transfer and land registration; Role of land settlement and survey; upazila land administration - collection of land revenue, survey and registration.

3.2. Managing Rural Administration : Production programmes
- Agricultural extension system from upazila level and below; Administration for fisheries extension and jalmahals in Bangladesh; Administration for Livestock extension in rural areas; Administration of rural industries extension; Input supply and services for managing agricultural extension; Management of rural credit through cooperatives and other organisations.

- 3.3. Managing Rural Administration: Infrastructure Building
- Administration of Rural Works Programme and Food for Works programme and their impact in the villages; Administration of Hats and Bazars in rural Bangladesh; Development and management of irrigation infrastructure and water development schemes in rural area; Organisation and administration of rural electrification.
- 3.4. Managing Rural Administration: Social Welfare Activities - Administering rural education programmes (non-formal, primary and secondary); Administration of rural health in Bangladesh villages; Family Planning programmes in rural Bangladesh; Administering Public Distribution System in rural Bangladesh - food procurement and distribution; Organising rural electrification societies; Administration of law enforcing agencies in rural areas - Police, VDP and Ansars.
- 3.5. Coordination - Concept and principles of coordination; Need for coordination in development administration; Institutional mechanism for coordination in rural administration network of Bangladesh; Problems of coordination at different levels of programme implementation and needed solutions.

Duration : 3 weeks.

3. DECENTRALISED ADMINISTRATION IN RURAL DEVELOPMENT

1. Conceptual and Historical Perspective of Decentralised Administration:

Principles of Welfare State and role of administration; Concept and principles of rural development and rural administration; Need, scope and objectives of decentralisation in rural administration; Definition and types of decentralisation and their reunifications under rural context; Socio-political and historical context of decentralisation in Bangladesh.

2. Decentralised Administration in Bangladesh : Strategies and Policies :

Decentralisation and planning for rural development in Bangladesh; Institutional approaches to decentralisation - Local Government Institutions and Co-operatives and vehicles for administrative and economic development; Review of various attempts of decentralisation of rural administration in Bangladesh -Union Parishad, Gram Sarkar and Upazila Parishads; Decentralization and transferred and retained subjects of rural administration; Physical infrastructure for decentralisation and programme contents in Bangladesh; Administrative infrastructure and decentralisation of departmental programmes -Role of UTDC; Charter of duties of Upazila/Thana level officials of various government departments; Integration and coordination of efforts of these officials at Upazila/Thana level;

3. Decentralisation, Resource Mobilisation and People's Participation:

Decentralisation and local resource mobilisation, land, water and people; Decentralisation and inter-departmental

resource mobilisation within the government-physical and fiscal;
Decentralisation and people's participation - experiences from a
few developing countries; Problems and prospects of people's
participation in decentralisation of rural administration of
Bangladesh; Women's Participation in decentralisation of rural
administration and programmes for their development.

4. Implementation of Decentralisation of Rural Administration.
Problems and Needed Solutions :

Institutional interventions for decentralisation in rural
administration - structure and function; Administrative and
physical infrastructure for decentralization - compatibility and
interdepartmental integration and functional coordination;
Political and administrative commitment - sustainability;
Resource mobilisation - local and interdepartmental; People's
participation - awareness building and decision making; Problems
and prospects of decentralisation in the Third World countries
with special reference to Bangladesh.

Duration : 2 weeks.

4. RURAL DEVELOPMENT, PROJECT PLANNING, MANAGEMENT AND
MONITORING

1. Management in Relation to Rural Development :

Definitions, principles and philosophy of rural development;
Importance of rural development in national development process;
Historical perspective of rural development programmes in
Bangladesh; Management - definition, principles and its
application in rural development; Tools and techniques of
management with special reference to rural development.

2. Development Planning and Project Formulation :

Principles, philosophy and need for development planning; Strategies of development planning in Bangladesh; Resource mobilisation for development planning in Bangladesh - domestic and foreign; characteristics of internationally assisted projects; Features of project approach in development planning.

3. Project Approach in Rural Development :

Project cycle - planning, implementation, monitoring and evaluation; Project identification and formulation; Feasibility analysis of project; Categories of rural development projects and their characteristics.

4. Rural Development Project Management :

Principles and techniques of project management - CPM, PERT, time management, financial management; Human dimensions in project management - management of motivation, leadership development, personnel management; Management experiences of a few rural development projects in Bangladesh - Two tier Cooperatives, SFDP, CVDP, Income Generating projects for rural women.

5. Monitoring and Evaluation of Rural Development Projects :

Definition, concept and process of monitoring and evaluation; Principle and practices in monitoring of development projects; Identification of indicators for monitoring and evaluation; Techniques of monitoring and evaluation; Rapid Rural Appraisal towards M&E; Reporting of M&E results.

Duration : 2 weeks.

5. IRRIGATION MANAGEMENT AND LAND USE DEVELOPMENT PLANNING

1. Concept, Objectives, Principles and Purposes :

Land use and Irrigation practices in Bangladesh and similar countries in the developing world; Basic concept of irrigation and irrigation management under the context of land use planning for fulfilling various kinds of demands of rural Bangladesh; Flood control and land use planning.

2. Land Use Possibilities in Bangladesh and Irrigation Management:

Land, Population (both human and animal) and water resources of Bangladesh; Various kinds of demands of the population on land and water resources; Technological possibilities for field crops, horticulture, feed and fodder for livestock, fisheries, agro-forestry and homestead utilisation for productive purposes. Demands on land for irrigation sources and other physical infrastructures like, irrigation and drainage channels, roads, culverts, schools, institutions and markets etc.; Principles and basic concept of irrigation management for optimum land utilisation towards meeting such demands.

3. Soil, Land and Crop Suitability :

Introduction to soil association, soil map, land types and crop suitability ratings (with and without irrigation); Techniques of soil type classification; Soil feasibility survey, Preparation of area land use maps giving information on signs and symbols; Methodology of calculation of areas under different uses; Enlargement and reduction of maps (class room exercises); Survey of an area in respect of land types, crops and the

cropping pattern; Extent of irrigation and land under various uses (Field exercises); Preparation of suitability charts and maps for other than crops' uses - agro-forestry, pisciculture, horticulture, brickfields, homesteads etc.

4. Irrigation Management Practices for Meeting Land Use Requirements :

Management techniques towards proper use of irrigation water for meeting land use requirements, Operation and maintenance of irrigation schedule, organising irrigation users' associations at grassroots level for managing irrigation systems; Management of various types of irrigation devices towards better drainage control and water utilisation.

5. Local Level Planning :

Concept and Practices : Thana Irrigation Programme framework; Thana production plan book; Coordination among various concerned agencies; Development of irrigation and land use plan.

6. Role of Institutions in Irrigation Management, Land Use Planning and Implementation :

Local Government, Govt. agencies/departments; Private institutions and NGOs; Coordination and integration of efforts of all these agencies in implementation of upazila production plan; Integration of programmes like RWP and Upazila Irrigation Programme with land use planning; Organising Input supply system for meeting land Use requirements.

Duration : 3 weeks.

6. PARTICIPATORY RURAL DEVELOPMENT

1. Rural Development :

Definition, concept and scope under the context of rural Bangladesh; Principal approach to rural development in developing countries; Socio-economic characteristics of rural Bangladesh; Rural power structure; Rural poverty in Bangladesh-major reasons and probable solutions.

2. Participatory Rural Development :

Definition and concept; People's participation in programme planning, implementation, monitoring and evaluation; Evolution of participatory rural development strategy in Bangladesh - Review of experiences from V-AID to the Comilla model of rural development; People's response to participatory rural development strategy in Bangladesh.

3. Institutional Strategy for Participatory Rural Development :

Role of local Government and cooperatives; Experience of securing people's participation in two-tier cooperatives under upazila system of rural administration in Bangladesh, TTDC; Managing people's participation through rural development programmes - land reclamation and improvement in land use, local resources mobilisation and utilisation, health, nutrition and family planning programme, Integrating efforts of NGOs in the implementation of rural development programme.

6. PARTICIPATORY RURAL DEVELOPMENT

1. Rural Development :

Definition, concept and scope under the context of rural Bangladesh; Principal approach to rural development in developing countries; Socio-economic characteristics of rural Bangladesh; Rural power structure; Rural poverty in Bangladesh-major reasons and probable solutions.

2. Participatory Rural Development :

Definition and concept; People's participation in programme planning, implementation, monitoring and evaluation; Evolution of participatory rural development strategy in Bangladesh - Review of experiences from V-AID to the Comilla model of rural development; People's response to participatory rural development strategy in Bangladesh.

3. Institutional Strategy for Participatory Rural Development :

Role of local Government and cooperatives; Experience of securing people's participation in two-tier cooperatives under upazila system of rural administration in Bangladesh, TTDC; Managing people's participation through rural development programmes - land reclamation and improvement in land use, local resources mobilisation and utilisation, health, nutrition and family planning programme, Integrating efforts of NGOs in the implementation of rural development programme.

6. PARTICIPATORY RURAL DEVELOPMENT

1. Rural Development :

Definition, concept and scope under the context of rural Bangladesh; Principal approach to rural development in developing countries; Socio-economic characteristics of rural Bangladesh; Rural power structure; Rural poverty in Bangladesh- major reasons and probable solutions.

2. Participatory Rural Development :

Definition and concept; People's participation in programme planning, implementation, monitoring and evaluation; Evolution of participatory rural development strategy in Bangladesh - Review of experiences from V-AID to the Comilla model of rural development; People's response to participatory rural development strategy in Bangladesh.

3. Institutional Strategy for Participatory Rural Development :

Role of local Government and cooperatives; Experience of securing people's participation in two-tier cooperatives under upazila system of rural administration in Bangladesh, TTDC; Managing people's participation through rural development programmes - land reclamation and improvement in land use, local resources mobilisation and utilisation, health, nutrition and family planning programme, Integrating efforts of NGOs in the implementation of rural development programme.

4. Alternative Approaches in Participatory Rural Development :

- . Disadvantaged focussed rural development programmes- SFDP, Rural poor programme, Women's Development programme
- . Comprehensive Village Development- an experimental project
- . Experiences for the developing countries.

Duration: 2 weeks.

7. RURAL HEALTH AND FAMILY PLANNING

1. Health, Nutrition and Family Planning - Current Status :

Basic concept and features of health, nutrition and population - their interrelationship; Population trend and its impact on socio-economic development of Bangladesh; Health and nutrition situation in rural Bangladesh; Health, population and food policy of Bangladesh; Primary health care - its definition, characteristics and status in rural Bangladesh; Nutrition based development programmes in Bangladesh and their status; Status of family planning programmes in Bangladesh.

2. Primary Health Care : Problems and Prospects :

Problems of public and primary health care in Bangladesh ; Primary health care - some methods; Child health - role of EPI, Use of growth chart for monitoring physical growth of child; Mothers' health care - pregnant and lactating period; Role of midwifery for mother and child health; Diarrhoeal and other contagious diseases and their remedies.

3. Food and Nutrition : Problems and Prospects :

Causes of malnutrition, Diseases caused due to malnutrition and their remedies; Classification of food; Balanced diet;

Sources of animal protein, its food value and their availability;
Food value of vegetables and their importance; Weaning food for
child - need and importance; Change of food habit.

4. Family Planning : Problems and Prospects :

Problems of population growth and management of family
planning programme; Social attitudes and belief system -
hindrances for development; Family planning programme
implementation at village level; Role of local level institutions
in family planning programme implementation; Maternal and child
health (MCH) and family planning; Delivery complexity - need for
referral services for family planning.

5. Health and Environment :

Environmental pollution and health hazards; Rural sanitation
situation and its impact on health; Safe drinking water for basic
health care.

6. Monitoring and Evaluation of Health, Nutrition and Family Planning Programme :

Indicators for monitoring changes in health, nutrition and
population status; Assessment of food, nutrition and family
planning situation through survey method.

8. MANAGEMENT OF RURAL ENERGY

(A course entitled " Rural Energy and Rural Industrialization"
was offered twice during 1987-91. But to me, it appeared to be
too broad in its scope and the course contents addressed, did not
really attempt to integrate the two. Considering the scope of
the two areas, 'Rural Energy' and 'Rural Industrialisation', it
was felt necessary to formulate two different programmes, namely;
'Management of Rural Energy' and 'Planning and Management of
Rural Industries').

1. Energy Scenario in Rural Development :

Energy and economic development; Status of various energy sources in Bangladesh - commercial and non-commercial; Energy use in rural development; Patterns of energy utilisation in rural areas - according to source and end-use; Impact of rural energy utilisation patterns on environment; Energy policy of Government of Bangladesh.

2. Energy Survey :

Need for assessment of energy consumption pattern for matching various sources with the end uses; Units of measurement of energy consumption and methods of assessment of energy consumption - survey methods, Rapid Rural Appraisal (RRA); Utilisation of energy survey results for policy formulation.

3. Rural Energy Technical Options :

- (i) Renewable energy options - Bio energy - Energy plantations, Bio gas, Wood gasifier, Improved chullah; Solar energy - thermal and electrical; Wind energy - mechanical and electrical; Microhydel etc.; Animate energy - DAP mechanised.
- (ii) Rural electrification - problems and prospects.
- (iii) Possibility of using the technological options for various activities in rural areas - agriculture, industry, transport etc.

4. Management of Rural Energy :

Identification and commercial production of various energy technologies relevant to the condition of rural Bangladesh, Extension policy needed to popularise their use; Problems of their wider utilisation; (BARD's experiences in adaptation of technologies like improved chullah, agricultural implements like

paddle thresher etc.); Decentralising management capability of rural energy sources - need for people's organisations.

Duration : 1 Week.

9. PLANNING AND MANAGEMENT OF RURAL INDUSTRIES

[This course has been developed as a separate programme, in view of its importance and load of information to be covered. The topics are being suggested on the basis of review of the contents of the programme 'Rural Energy and Rural Industrialisation', the fourth plan document of GOB, coverages of similar kinds of programmes offered elsewhere.]

1. Rural Industries - Status and Policies :

State of rural industrialisation in Bangladesh; Scope of development of small, cottage and rural industries in Bangladesh; Development of small, cottage and rural industries - policies of Bangladesh Government;

2. Planning for Rural Industrialisation :

Project approach in development of rural industries - project cycle; Identification of potential sectors of rural industries capable of employment generation (sericulture, handloom, handicrafts, agrobased industries, fish processing, mushroom, cassava starch, fruit juice, spices and dehydrated vegetables etc.); Formulation of rural industries project in these sectors, Planning for infrastructure development, raw materials supply and marketing facilities to support rural industrialisation in these areas; Identification of socio-economic groups in rural areas appropriate for taking up various types of rural industries;

3. Management of Rural Industries :

Technology transfer mechanism to support rural industrialization; Entrepreneurship development for rural industrialisation; Institutional credit support for rural industrialisation, Role of BSIC in providing/ package of services towards rural industrialisation; Involving women in rural industries - experiences of Grameen Bank, Swanirbhar credit programme, BRAC, and BRDB.

Duration : 1 week.

10. POVERTY FOCUSED RURAL DEVELOPMENT

1. Poverty Alleviation : Concept and Approach :

Socio-economic characteristics of rural Bangladesh; Reasons of poverty in rural Bangladesh and their impact; Characteristics of poverty and its measurement; Definition of rural poor and their identification; Poverty focused rural development - need and focus.

2. Poverty Alleviation : Policies and Programmes :

Policy and programmes of the Govt. for poverty alleviation at national level; Planning and implementation of poverty alleviation programmes; Local resource mobilisation and utilisation for poverty alleviation; Review of past poverty alleviation efforts in Bangladesh; Experiences of poverty alleviation efforts in developing countries from Asia.

3. Poverty Alleviation : Institutional Intervention :

Role of local level institutions in poverty alleviation; Comilla approach of rural development and its impact on poverty

alleviation; Rural Works Programme (RWP) and Food for Works Programme (FWP) in poverty alleviation; Poverty alleviation programmes of BRDB; Grameen Bank in poverty alleviation; NGOs' intervention in poverty alleviation; BARD's ongoing experimental intervention in poverty alleviation - experiences of SFDP, VCDP and CVDP.

Duration : 2 weeks.

11. RURAL DEVELOPMENT

[Courses on 'Rural Development' of varied duration are offered to different categories of clientele ranging from policy makers to programme implementors. After reviewing the programmes of recent past and considering the possibility of conducting relatively longer duration programme on this subject, the curriculum is suggested by bringing in all the major issues confronting present day rural development in Bangladesh. The duration for all these aspects is suggested to be 4 weeks. However, topics may be appropriately selected to offer courses of shorter duration.]

1. Rural Development : Concept, Philosophy and Approaches :

Concept and philosophy of rural development in the context of rural Bangladesh; Socio-economic characteristics of Bangladesh villages; Historical perspective of rural development efforts in Bangladesh - brief resume of experiences from VAID to the Comilla approach of rural development; Different approaches of rural development in Asian countries - Goals, strategies and experiences.

2. Rural Development Administration :

Rural development administration in the context of development administration; Experiences of organising rural administration in Bangladesh under various institutional structures - basic democracy to upazila parishads; Managing

development programmes through rural administration - production programme, infrastructure building, social welfare activities.

3. Rural Development : Institution Building :

Concept of institution building in rural development; Rural development and local government institutions; Financial institutions and rural development cooperatives and their role, two tier cooperatives - initiation, growth and present status, BRDB and its role in coordinating the two tier cooperatives in Bangladesh; Financial institution under non-government initiative-experience of grameen bank; Institution building experience of BARD - CVDP and SFDP.

4. Poverty Focus in Rural Development :

Poverty in rural Bangladesh - reasons and probable solutions; poverty alleviation and rural development programmes - Rural Works Programme (RWP) and Food for Works Programme (FWP), Poverty alleviation programmes of BARD, NGO's interventions in poverty alleviation; Experiences of poverty focused rural development programmes from Asian countries.

5. Special Issues in Rural Development :

Women development in the context of rural development; Health and nutrition : Basic concept and problems of public health in Bangladesh; Population problems and management of family planning programmes; Environmental issues confronting rural Bangladesh; Social forestry and its relevance to rural development; Appropriate technologies for rural development.

6. Co-ordination :

Coordination - Concept and principles of coordination; Need for coordination in development administration; Institutional mechanism for coordination in rural administration network of Bangladesh; Problems of coordination at different levels of programme implementation and needed solutions.

Duration : 4 weeks.

1.9. Identification and Selection of Appropriate Training Techniques and Methodologies

Training methods and techniques seek to concretise the requirements of the curriculum through planning of a series of learning experiences. The training activities of BARD historically had been trying to develop the human resources for strengthening the rural development institutions. Such development in human resources aims at changing the knowledge, attitudes, skills and inculcate a sound philosophy of life. Thus, to produce such wide range of changes, varied methods of training have to be employed, satisfying the criteria of pertinence, effectiveness, trainer and learner familiarity, time, cost, size of groups of participants as well as motivation of trainers and participants (Mathur, 1990).

Training methods seek to reconcile the demands made by the curriculum and the motivation of individual participants. The methods also should satisfy a multipurpose approach to learning, so that the desirable changes in knowledge, skills and attitudes and philosophy of life occur simultaneously. Most effective

learning takes place in a positive emotional atmosphere emerging out of the manifold framework of relationship in the academy. This framework includes formal and informal relations among the faculty members themselves, constituting training team, faculty-participants relationship, and relationships among the participants themselves. However, the most significant part of learning occurs in the third area of this framework i.e., when participants interact among themselves and each participant's own personality changes under its own motivation (Lynton and Pareekh, 1978). The trainer in such cases only can initiate and facilitate the process of change. Thus, the training methods which facilitate maximum participation of the participants themselves are likely to be more effective in producing desired levels of behaviour changes.

Training methods have also been viewed in terms of degree of emotional and intellectual involvement in the learning process and can be placed on a continuum of objective - subjective scale as follows :

Lecture	Movie Film/ Video	Group Discus- sion	Case Study	Role Play	Simulation games	Group therapy	Sensitivity or 'T' group
Objective	-	-	-	-	-	-	Subjective

Based on the above two considerations, viz. framework of relations and objective - subjective scale, the contents of the training curriculum and the learning objective should be adjudged for selection of training methods. Accordingly, various types of training methods at the disposal of the trainer can be classified in the following manner :

1. Individual - Individual

Individual Guidance and Counselling :

Such method is effective in intensive guiding of the participant individually in some skills or helping him to face personally tensions or problems of adjustments in the organisation. It may be advisable to train one faculty member in individual guidance and counselling so that participants can approach him or her when they want to.

2. Individual - Group

(a) Lecture :

Lecture is a formal, unilateral oral communication logically organised and presented according to the levels of receptivity of the participants. It is by far the most widely used training method in almost all the developing countries. The Academy's dependence on this method has been in about 69 percent of the sessions. In foreseeable future, such dependence will continue. However, a strategy can be adopted to make them more effective by suitable incorporation of audio-visual aids, the extent of which is very minimal at present. Besides the use of audio-visual aids, lectures can be significantly improved by lesson planning, advance distribution of outlines with bibliographies and incorporation of suitable illustrations from practical fields of rural development.

(b) Group Discussion :

A group discussion is a planned and purposive interchange of ideas and feelings under supervision of the discussion leader, usually the trainer.

This method can be very fruitfully utilised in helping the participants acquire new knowledge and change attitude by getting engaged in a participative process of developing insights and qualities of leadership. However, the extent of use of this method in the Academy's current training programme is limited to hardly 7.27 percent of the total sessions. Group discussion can be used more frequently in the training programmes by arranging sessions on experience sharing among participants around commonly felt operational problem areas in course of implementation of development programmes. The role of the faculty members as trainers in using this method is to make advance preparation to draw out problems from the group, facilitate communication and keep a balance between task - orientation and maintenance functions.

(c) Syndicate Study :

Syndicate study is a specialised forum of group discussion combined with individual assignments which are collected and discussed by the group. A report is prepared by each group and presented to the general assembly of all the participants . The selection of topics for syndicate work should be made by the general assembly of all learners with the active assistance of the trainers. The role of the trainer is to stimulate discussion, offer suggestions or exploration into various areas and see to it that individual assignments are actually prepared by members, presented and discussed in the syndicate group, so that the final report is really a group effort and not one prepared by one or two enthusiastic but overburdened members.

In the Academy's training programme, this method is not being used presently. But with little more planning, the syndicate study can be very effectively used by integrating with field surveys for which about 6.12 percent of sessions in training programmes are devoted. Besides, the exercise on library study can also be organised around syndicate study. About 7.78 percent of the sessions in current training programmes are devoted to such Library studies.

(d) Case Study :

A case study attempts to give a holistic view of social phenomenon along with an analysis of the interrelatedness of various factors operating in the process which is not only complex but also dynamic. In the hands of skilled researchers, it acts not only deep but also wide enough to permit valid hypotheses to be made. Its conclusions may not be statistically valid but a case study offers a micro analysis of a process in reality. The potentiality of a case as a learning instrument is almost unlimited. One cannot avoid learning when working on it (Casse and Deol, 1983).

Discussions of case studies in the training situation should be preceded by an adequate understanding of theoretical base and some content with the reality of experience. The discussion of case studies develops skills of analysis, genralisation and synthesis, so essential for the professional development worker.

The Academy in its current training programmes devotes hardly 0.91 percent of the session on this method. To enable

more frequent use of this very powerful method, it is necessary to build up Academy's own collection of case studies. A possible method of developing such collection will be to allot themewise case studies to the faculty members. Research techniques like Rapid Rural Appraisal (RRA) can be effectively employed for developing such collection within relatively less time. Over a period of time, such collections may be compiled around important thematic groupings concerning rural development. The consultant's efforts of organising the Training of Trainers' Course for the BARD faculty members produced six case studies, prepared by the participants themselves on various issues of rural development. This showed their potentiality.

(e) Role Play :

This is enactment of real life situation in the controlled environment of a training institution with a view to enable the participants to perceive the importance of feelings and attitude in administrative behaviour. The role of the trainer is to select the situation which is neither too distant nor too near to the immediate psycho-social environment of the participants, prepare role briefings, conduct the role play and then lead the group discussion which follows. Role play can be very effectively used in building skills in human relations in organisational situation. (Parry, 1974)

At present in the training programmes of the academy, this method is hardly used. A few role briefings, though available, is used occasionally by one or two faculty members. The faculty

members need to be encouraged to develop such role briefings and increasingly use them in appropriate training situations. It may be worthwhile to mention here that the consultant's efforts of organising Training of Trainers' Course for the faculty members culminated into development of six such role briefings under varied training situations. These briefings were prepared by the faculty members themselves, which need to be constantly upgraded through continued use.

(f) Structured Experiences :

Structured experience is a term used for those training activities through which the trainer tries to help participants learn from their own behaviour as well as experience of others' behaviour. This is attempted by :

- (a) 'Structuring' the learning situation, that is providing a somewhat controlled condition for the group to concentrate on the chosen/learning goals;
- (b) help desired learning to take place through an intensive experience within a limited span of time by focusing on their experience while doing certain things as per the design of the exercise and later in analysing and deriving inferences from the same.

Structured experiences are designed with the specific objective of helping participants to enhance their self awareness and understanding of the human dynamics in various contexts such as interpersonal, group, inter-group and organisation.

However, what each participant will learn cannot and should not be dictated. A structured experience creates unique personal learning experiences for each participant, although it is possible to identify some commonality in this respect. The commonality usually is its specific learning objective. A clear understanding of the learning objective is essential for the trainer. He/she needs to understand how to acquire the necessary competence to use this method effectively. Other terms like 'simulation exercises' and 'games' are also used in place of structured experience.

These 'structured experience', though very effective and widely used in almost all modern training institutes, are not applied in the training programmes of the academy. There are numerous numbers of exercises, developed and standardised for application in varied training situations. One of the most exhaustive attempts of compiling these exercises is evidenced in the series, "A Handbook of structured Experiences for Human Relations Training : Vols. I to X", edited by Pfeiffer, J.W. and Jones, J.E. and published by University Associates, San Diego, California. Five volumes of this series are available in the Academy Library. Efforts should be made to procure the remaining volumes and the faculty members need to be trained in the use of such kinds of structured experiences in training situations.

3. Group - Group

(a) Panel Discussion

In Panel Discussion, a controversial subject or a subject having clearly defined dimension is discussed by members of the

However, what each participant will learn cannot and should not be dictated. A structured experience creates unique personal learning experiences for each participant, although it is possible to identify some commonality in this respect. The commonality usually is its specific learning objective. A clear understanding of the learning objective is essential for the trainer. He/she needs to understand how to acquire the necessary competence to use this method effectively. Other terms like 'simulation exercises' and 'games' are also used in place of structured experience.

These 'structured experience', though very effective and widely used in almost all modern training institutes, are not applied in the training programmes of the academy. There are numerous numbers of exercises, developed and standardised for application in varied training situations. One of the most exhaustive attempts of compiling these exercises is evidenced in the series, "A Handbook of structured Experiences for Human Relations Training : Vols. I to X", edited by Pfeiffer, J.W. and Jones, J.E. and published by University Associates, San Diego, California. Five volumes of this series are available in the Academy Library. Efforts should be made to procure the remaining volumes and the faculty members need to be trained in the use of such kinds of structured experiences in training situations.

3. Group - Group

(a) Panel Discussion

In Panel Discussion, a controversial subject or a subject having clearly defined dimension is discussed by members of the

panel under the direction of the chairman after which the discussion is thrown open to the audience or participants. The chairman summarises the discussion at the end. This method can be very effectively utilised in training courses in putting across different dimensions of a particular problem area.

(b) Symposium

In symposium, the topic can be divided conveniently into sub-area or various facets, each one being taken up by an expert. The presentation is preceded by the chairman's remarks, followed by audience participation and concluded by the chairman.

(c) Seminar

A seminar usually consists of experts who combine to explore a limited area of enquiry. The subjects of the seminar may range from highly specialised and theoretical to general and practical ones.

(d) Conference

A conference seeks to bring together specialists, interested citizens, policy makers, executives and learners to discuss an area of practical importance with policy implications. The conference usually comes out with recommendations to be duly considered by policy makers and executives.

(e) Workshop

A workshop is a conference with a practical bias wherein experts deliberate upon specified areas of interest concerning development process.

The Academy, conducts training courses with the primary objective of producing desired changes in the behaviour pattern of its clientele. But at the same time it has to serve as the 'think-tank' for the government, facilitating policy making exercises in rural development and allied sectors. In this respect, the methods like symposium, seminar, conference and workshop may be very conveniently used for pooling of ideas of experts or resource persons in the form of recommendations or policy prescriptions for the government. Besides, these methods also may help generate information base for the academy in new areas of interventions, where it is yet to develop its expertise. For example, information base in the areas like environmental or disaster management need to be developed first through these methods, before embarking upon any research and training course, as it has been felt necessary.

(f) Supervised Field Practice

Professional training in the related fields of rural development cannot be complete without giving opportunities to learners to get a feeling of the actual field conditions under the general supervision of the trainers.

Such field exposures are provided to the participants in the training programmes of the Academy through two major methods, namely, 'field visits' and 'field exercises', together constituting 11.72 percent of the sessions.

While these are various types of training methods which can be used by the Academy in its training programmes, the choice of

particular method will depend upon the learning objectives of individual sessions, time at the disposal of the trainer and above all the availability of appropriate facilitator to handle them appropriately.

1.10. Selection of Supporting Materials and Allocating Facilities and Resources

1.10.1. Selection of Supporting Materials :

For conducting effective training programmes, the role of various kinds of supporting training materials is very important. They really facilitate the learning process by influencing their perception as well as retention of the information provided during training process. Wide range of such supporting materials are used in modern training programmes. They range from simple handouts of lecture materials to more complex forms of reference materials, illustrations, case materials and exercises. The following categories of supporting materials were selected from among the available resources in the academy as well as a few from the available body of information on training.

- (i) A themewise cataloguing of handouts available in the Academy.
- (ii) A list of various kinds of training materials like cases, illustrations, exercises etc. available in the academy.
- (iii) Glossary of training terms useful for the trainers.
- (iv) Bibliographic support materials on training developed by the consultant.

The methodology for the selection of the above mentioned materials as well as the details of the materials collected are spelt out in the following paragraphs.

(i) Thematic cataloguing of handouts

The academy follows a very good strategy of supplementing most of the lecture materials with handouts either in detail or only with the salient features. Such handouts are preserved and maintained by the training division. The usual procedure followed so far, was to maintain speakerwise pigeonholes for preserving his or her handouts irrespective of subjects. This method however did not allow one to scan through the handouts available on any particular area of interest.

In view of such difficulties and to make the collection of handouts more utilisable in training programmes, effort was made to categorise them into thematic groupings. In all, 455 handouts both Bengali and English, were identified for such thematic groupings. Following the method of content analysis, the major focus of a particular handout was identified in line with the nature of training programmes addressed by the academy and accordingly, all the papers were grouped under 26 broad thematic groupings as mentioned below :

1. People's Participation
2. Training
3. Land Use and Irrigation Management
4. Transfer of Technology/Extension/Development Communication/
Motivation
5. Democratic Decentralisation
6. Local Level Planning
7. Organisational Development and Leadership
8. Rural Development Experiences of Different Countries

(i) Thematic cataloguing of handouts

The academy follows a very good strategy of supplementing most of the lecture materials with handouts either in detail or only with the salient features. Such handouts are preserved and maintained by the training division. The usual procedure followed so far, was to maintain speakerwise pigeonholes for preserving his or her handouts irrespective of subjects. This method however did not allow one to scan through the handouts available on any particular area of interest.

In view of such difficulties and to make the collection of handouts more utilisable in training programmes, effort was made to categorise them into thematic groupings. In all, 455 handouts both Bengali and English, were identified for such thematic groupings. Following the method of content analysis, the major focus of a particular handout was identified in line with the nature of training programmes addressed by the academy and accordingly, all the papers were grouped under 26 broad thematic groupings as mentioned below :

1. People's Participation
2. Training
3. Land Use and Irrigation Management
4. Transfer of Technology/Extension/Development Communication/
Motivation
5. Democratic Decentralisation
6. Local Level Planning
7. Organisational Development and Leadership
8. Rural Development Experiences of Different Countries

9. Agricultural Development : Crops, Livestock, Poultry and Fisheries
10. Disaster Management
11. Social Forestry/Environmental Management
12. Socio-economic Development and Rural Society
13. Rural Development Programmes and Experiences of Bangladesh and BARD
14. Development Administration/Decentralised Administration and Rural Development
15. Agrarian Reform
16. Rural Poverty
17. Population, Family Planning and Employment
18. Women's Development
19. Cooperative and Institutional Finance/Financial Management of Cooperative Societies
20. Rural Health and Nutrition
21. Rural Education
22. Project Management/Business Management/Management Development
23. Research Methodology and Statistics
24. Rural Industrialization
25. Administrative Management
26. Miscellaneous

Separate catalogues in Bangla and English have been prepared and the handouts of all the above mentioned twentysix categories have been kept in separate folders. For future, it is recommended that the Training Division may maintain and preserve the handouts according to either these thematic groupings or substitute and supplement them with any better and more relevant themes. This will enable firstly, easy identification of the

thematic resources and secondly, handouts on one or few related thematic groupings after passage of time, may be carefully edited and compiled in the form of useful publications covering a particular dimension of rural development.

(ii). Cataloguing of training materials

It is interesting to note that the academy has been devoting less than even one percent of the sessions on case studies, whereas a number of case studies, written by the faculty members themselves, covering several management dimensions of rural development remain yet to be used to any significant extent. Barring a few faculty members, others are not even aware of such resources. Besides the cases, there are number of other kinds of materials like role briefings, exercises and illustrations which could be effectively utilised in addressing specific sessions.

An illustrative account of various categories of these training materials which could be identified is mentioned in table 1.11 with an indication of possible training situations in which they could be used.

All these materials, specially the classroom cases and role play materials may be publicised among the faculty members, so that they may think of their increasing use in the training programmes, they conduct. Coupled with these materials, the output of the Training of Trainers inhouse course for the faculty members as stated earlier, will also be very good base material on which the superstructure of training material resources may be built up.

Table- 1.11: Training Materials Available in the Academy and Their Use

Sl. No.	Category of training materials	Brief Description	Training situation where it could be used
1.	Class room case	Planning: Consequence of planning without sufficient analysis of the actual condition and anticipation of the after effects	(1) Planning and management of development programme (2) Transfer of technology (3) Project formulation and implementation
2.	-do-	Project Planning - A case of Ideosyncrasy: Consequences of a poultry disease in a poultry farm started by the landless cooperative of a village	(1) Planning and management of development programme (2) Project formulation and implementation (3) Transfer of technology
3.	-do-	Conflict Resolution: Conflict between a samity ARDO and local elite/UP Chairman regarding the right to cultivate land leased from the government without having to yield to former provisos	(1) Problem solving (2) Rural Power structure (3) Leadership
4.	Classroom case	Supervision and Management of Training: A disorganised training classroom situation without proper management	(1) Designing and management of training programmes
5.	-do-	Consensus seeking: In a meeting a road construction programme is under debate. Two groups with two divergent proposals regarding routing of the road try to establish views of each other-resulting into end of meeting in fiasco.	(1) How to conduct a meeting (2) Consensus building (3) Problem solving (4) Decision making
6.	-do-	Can Mr. Fao be a superman? A very busy schedule of an officer and his problem of coping up with multifarious kinds of jobs, he is involved with	(1) Supervision (2) Delegation of power/responsibility (3) Job description (4) Human relations

Sl. No.	Category of training materials	Brief Description	Training situation where it could be used
7.	Classroom Case	Interdepartmental coordination: In the face of serious pest attack in an area, inadequate supply of pesticides causes concern to the Thana Rural Development Officer	(1) Managing development programme (2) Transfer of Technology (3) Coordination
8.	-do-	S. Joshpur MSS. The society interested in starting a poultry farm gets two of its members trained in vaccination. But in the face of non-availability of equipment as well as vaccine, the Livestock officer's help is sought	(1) Project planning and implemetation (2) Problem solving
9.	Exercise	Man's view of work: (with scoring key)	(1) Supervision (2) Management styles (3) Organisational development (4) Personnel management
10.	-do-	Questionary: The mistakes we do in written communication	(1) Communication process
11.	-do-	In-tray Exercise-Decision making under pressure	(1) Decision making
12.	-do-	Ranking Exercise: The ideal Government officer	(1) Leadership quality
13.	-do-	Network Planning: Handout and Exercise for critical Path Analysis	(1) Project Planning and management
14.	-do-	The irrigation Canal Meeting: A meeting to discuss the location and construction of an irrigation canal	(1) Conflict resolution (2) Decision making (3) Role play technique in TOT/Training Methodology Course
15.	Illustration	Situational Leadership and Leadership styles	(1) Leadership
16.	-do-	Communication Model and Objectives	(1) Communication Process
17.	-do-	Problem Solving Model	(1) Problem solving

(iii). Glossary of Training Terms

There are number of terminologies used in training, which should be well known to the trainers. In view of this, a glossary of 324 training terms was incorporated in the reading materials, compiled on the occassion of the course on Training of Trainers conducted for the BARD Faculty members. The glossary has been provided at the end of the part I.

(iv). Bibliographic Support Materials on Training

Collection of reference materials on 'Training', in the Academy's Library is not all all satisfactory. In all there are 35 holdings on the subject in the Library and there is definite dearth of very important books which any institute engaged in training should have. Hence, the consultant as a part of his mission of selection of supporting materials for training, prepared a select bibliography on training. A total of 221 holdings were incorporated in the select bibliography, which need to be procured in the Library. The select bibliography has been provided at the end of part I.

1.10.2. Allocation of Facilities and Resources

BARD is well endowed with infrastructural facilities like six Lecture Halls, one Auditorium, a very good Cafeteria and a number of Hostels, capable of accomodating more than 150 participants at any given point of time. Besides, the Academy is endowed with about fifty member strong multi-disciplinary faculty resources.

1. Faculty Resources :

In the resources front, the Academy's greatest strength lies in its fortyseven member multi-disciplinary faculty with varying extent of experience and expertise of working with different rural development related issues.

0 Specialisation

Table 1.12 provides an account of the basic fields of subject specialisation of these faculty members grouped into seven broad categories.

Table - 1.12 : Distribution of Faculty Members According to Various Categories of Subject Specialisation

Sl. No.	Categories of Subject Specialisation	No. of Faculty Members
1.	Agricultural Engineering	5
2.	Agricultural Sciences (Agriculture, Animal Husbandry, Fisheries)	6
3.	Commerce	4
4.	Communication/Information Sciences (Journalism, Library Science)	2
5.	Pure Sciences (Bio Chemistry and Applied Chemistry)	3
6.	Social Sciences (Sociology, Economics, Political Science/ Public Administration, Psychology, Education and Home Economics)	23
7.	Statistics	3
8.	Others(English Literature)	1

An overwhelming number of faculty members (23) are specialised in Social science related disciplines. Such weightage is obviously due to the emphasis on social science related issues in the contents addressed in various programmes right from the

beginning of the Academy. Moreover, rural development basically deals with the study of rural society in relation to the interventions made by development administration in any welfare state. Bangladesh, initiated her rural development efforts in the lines of welfare state. The academy which was established to cater to the training and research needs of such efforts, expectedly addressed more to the rural societal studies. Hence the presence of more numbers of social scientists.

The professionals having specialisation in agricultural engineering and various other agricultural sciences are next in strength in the academy's faculty. Such distribution was in line with the production oriented institution building approaches followed by the academy in course of development of various components of Comilla model.

There are other faculty members, though in much lesser number, representing subject specialisations like commerce (4) Communication/Information science (2) Pure science (3) and Statistics.

At present these faculty members, irrespective of their subject specialisation, are transferable within the eight divisions, with the position of Director (Administration) being rotational among the Directors, who are again professionals. Such an arrangement is neither conducive to the faculty members' (specially the juniors) career planning nor in developing further specialisation. In SWOT perception also this has been brought out by the faculty members.

- * Thus, the faculty resources should be allowed uninterrupted chance of developing specialisation in their respective fields.
- * In course of time the faculty members will be considered as repository of information.
- * This will help the academy towards cumulative development of information base on different thematic areas, pertaining to rural development in Bangladesh.
- * This will ultimately help the academy in developing training materials as well as policy prescriptions in various fields of rural development.

0 Allocation of training responsibilities

The methodology for allocation of training responsibilities in the academy at present also does not always take into account the specialisation of faculty member on the basis of centrally developed training calendar, the Training Division negotiates with the prospective sponsoring organisations for securing nomination of participants. Once sufficient nominations are ensured, generally a week to ten days in advance, the team of Course Directors is decided with approval of the chief executive of the academy. The procedure of selecting the team however appeared to be somewhat adhoc in nature. The certificate courses take into account the major subject area focus and specialisation of faculty members for allocating responsibility of directing the courses. However, for the orientation and foundation courses the course directors are selected without following any such criteria.

The responsibility of directing the courses irrespective of their types (certificate, orientation or foundation) should preferably be earmarked while finalising the training calendar

for any academic year. This will ensure the faculty members' involvement right from the stage of designing the courses, which should be taken up at least 10-12 weeks ahead of the scheduled date of commencement of the programme.

Secondly, the mechanism of allocation of course Directors according to the relevant specialisation of faculty members should continue. But for the programmes of general nature like orientation and foundation courses, panel of faculty members should be maintained from which the team of course Directors should be decided on a rotational basis.

0 Training load

The pattern of utilisation of faculty resources towards training programmes was computed by taking into account two major kinds of training responsibilities, the members are required to perform. These two responsibilities are taking sessions in training courses (including field visit/field study) and organisation of courses in the capacity of Director or Assistant Director. Involvement of any faculty member towards taking one session in a course was considered a full working day, which included the time for preparing himself irrespective of new or repetitive sessions. Similarly, for organisation of a course, any faculty member's involvement was calculated by taking the cumulative account of the total number of days of actual training programmes conducted in a particular year and a weeks preparatory time before commencement of the course. The information was collected from the working papers for Training discussed during the Annual Planning Conference of the Academy. Data in the above

forms were available only for the preceding two years i.e. 1990-92, which were collected and computed for getting an idea about the present rate of utilisation of faculty resources, which are presented in table 1.13. It has been assumed that in any given year there are 270 effective working days available with a faculty member, after deducting the closed holidays and casual leave due to him.

Table 1.13 : Extent of Utilisation of Faculty Resources Towards Training in the Academy

Academic Year	Number of Days of Involvement for				
	Taking Sessions	Organising Courses	Total	Average per faculty member	Percentage
1990-91	1699	1315	3014	73.51	27.22
1991-92	1251	1126	2377	55.28	20.47
Total	2936	2441	5377	64.01	23.71

Table 1.13 reveals that the extent of average utilisation of a faculty member's time was 23.71 percent during the preceding two years. There is however no prescribed weightage of faculty member's time allocation towards the three major mandatory activities of the Academy, like training, research and action research. If one assumes equal weightage between the three functions, the present rate of faculty members' time utilisation stands much below the standard. The Academy needs to decide the extent of such weightage, considering its mandate and priority activities for any given period of time. This however needs to be revised from time to time, keeping in view the changing rural scenario of the country.

2. Audio Visual Support

The Academy has got a communication section which provides necessary audio-visual support to training activities. Till recently, the communication section was functioning under the direct control of Training division. But in line with the recommendation made by the Documentation and Communication Consultant of the ADB project, administrative actions are under way to establish a separate division of Documentation and Communication. Till the formal establishment of the division, the unit has been placed under the supervision of a Joint Director (Development Communication) attached to the Administration Division. This however appeared to be detrimental to the interest of the growth and proper functioning of this division. Till, it is possible to establish a new division, steps should be taken to place it under the independent charge of the Joint Director (Development Communication) instead of making it an appendage of Administration. The present audio-visual equipment support of the Academy has been compiled in the report of the National Consultant (Communication) of the ADB project (Mannan, 1992). However, a number of improvements are needed in respect of such audiovisual support to facilitate the training activities of the academy, which are spelt out below :

1. None of lecture Halls/Conference Halls at present, is suitable for projection, in the absence of darkening facilities. The present white curtains need to be replaced with dark coloured heavy curtains or venetian blind.

2. The lecture halls/conference halls should be provided with single point switch for controlling all the lights of the halls.
3. Conference type public address system should preferably be installed permanently in all the lecture/conference halls. At least, the conference halls should be immediately equipped with such facilities.
4. All the lecture/conference halls should be provided with at least one each of overhead projector, slide projector, flip chart board, flannel board. While the present strength of overhead projector and slide projector of seven and six respectively can be considered adequate at the present level of their use, the conditions of flip chart board and flannel board are highly deplorable. They need to be immediately replaced with new ones.
5. Lapel microphones should be purchased in sufficient numbers to facilitate speakers' mobility in the classroom.
6. The tracing table for facilitating graphic works need to be fixed with ground glass to improve efficiency.
7. For facilitating proper projection of overhead transparencies, screens need to be fixed with appropriate inclination, so that it comes at right angle with the reflected ray from the projector lens.

1.11. Selection of Appropriate Evaluation Techniques

Evaluation in training is a subject on which there exists a large volume of literature. But in training situation, it is often found that it takes the form of mere formality. To

systematically elicit and analyse feedback from the participants and trainers is a very important component of any training programme. It helps not only to build up and strengthen future programmes, but also to reflect and consolidate upon present learning. Evaluation is thus a process of seeking feedback from the participants about the effectiveness of various aspects of the training programme. These aspects are, namely (1) relevance of training objectives; (2) accomplishment of the objectives; (3) appropriateness of training methodology; (4) impact of learning in relation to the back home work situation of the participant; (5) appropriateness of contents; (6) effectiveness of speakers, training materials as well as various physical facilities etc.

When training evaluation is viewed from the terminal behaviour changes on the part of the participants, it needs to measure their knowledge, attitudinal, and performance changes etc. in relation to their work. While changes in knowledge and attitude can be measured through post training evaluation of the participants, their performance in improving the rural development delivery system is difficult to be tested. The difficulty is due to three counts. First, behavioral changes and skill development of the clientele may be a small part of the complex of factors which determine the performance of the rural development administrative system. Second, the behavioral changes and skills of the clientele could be rendered less effective due to hostile organisational climate in the larger administrative system. Third, the necessary knowledge and

techniques for evaluation may not exist or be available. A mix of these factors in varying degrees of intensity prevailing in almost all developing countries and Bangladesh is no exception. (Paul, 1983).

1.11.1. Various Evaluation Techniques

In view of these factors, the evaluation techniques and methods usually followed by training institutes can be divided into four stages : (1) daily evaluation, (2) mid-term evaluation, (3) evaluation immediately after the training and (4) follow-up at specified intervals after the conclusion of the training programme.

0 For identifying and resolving problems as they arise,, daily evaluations are very helpful. Usually the process is participatory with both the learners and trainers assuming joint responsibility for the management of the training. Daily course corrections may take place to keep the learning process on track. Usually this kind of evaluation is less structured.

0 In the middle of a training programme, a quick evaluation can be held. This is a vital stage for consolidating the present learning, giving opportunity for catharsis to take place and ensuring relevant direction for the remaining period of training. Mid-term review can be done orally, through a questionnaire and/or individual interviews. Modifications can be brought about in the topics or pace of the training programme, besides reorientation of the sessions etc.

0 In most of the training programmes, evaluation is done as soon as the training is completed. This is done to assess the impacts of the training, while the experiences are fresh in the minds of the learners. This evaluation is usually done through the use of questionnaire. Suggestions for future training programmes can also be sought at this stage.

0 Back home, after the training programme, the learner through his/her practice can draw some additional insights into the training programme. Such insights are very important to strengthen future training programmes. Sometimes, this kind of evaluation is termed post-training evaluation or follow up studies. It can be done through questionnaire or face-to-face dialogue or both. Many a times, such evaluation conducted after three to six months of the training programme can provide a realistic assessment of learning.

The Academy at present follows only the evaluation immediately after the training course is completed through the use of a structured questionnaire. While evaluation can be conducted at all the four stages, the first two can be taken up informally. But for the evaluation immediately after the course, a more formal method is helpful. Judged in the light of various aspects of evaluation of any training Programme, the present format needed improvement. For undertaking such improvement a participatory approach was adopted.

1.11.2. Strategy Adopted in Evolving Evaluation Format

The revised evaluation format was developed in two stages. In the first stage, the present format of training evaluation was placed before two groups of faculty members of the academy consisting of Joint Directors, Deputy Directors and Assistant Directors during the Training of Trainers Course. They were asked to review the format in the light of objectives and steps of training programme evaluation. As a result of such review, the two groups came out with two different formats with indications for computation techniques of training effectiveness scores. A drafting committee was formed with three members from each group, the consultant and the Director(Training) of the Academy to develop a common format by compiling the two.

In the second stage, the common elements from both the formats were consolidated and the evaluation formats followed by relevant Institutes were consulted. Considering all these, a draft evaluation format was evolved which is placed below. This format was tested during the Training of Trainers course conducted by the consultant for the Academy's faculty members and it was found to be more objective than the presently followed one. However the Academy may test this format in more number of its training programmes before finally adopting it.

1.11.3. The Suggested Evaluation Format

BANGLADESH ACADEMY FOR RURAL DEVELOPMENT
KOTBARI, COMILLA, BANGLADESH

COURSE EVALUATION PROFORMA

Name of the Course :

Duration :

From

To

The course was conducted with the following objectives :

(The objectives need to be typed before giving it to the participants)

(1)

(2)

(3)

1. Relevance of Objectives and their Success in Achievement

How relevant were the objectives to your requirements and what was the extent of each of their achievement ?

(Give tick mark in appropriate column)

Objectives	Relevance				Extent of achievement			
	Highly relevant	Relevant	Moderately relevant	Not so relevant	Highly Satisfactory	Satisfactory	Moderate	Unsatisfactory
	(4)	(3)	(2)	(1)	(4)	(3)	(2)	(1)
1.								
2.								
3.								

2. Effectiveness of the Contents

What is your opinion about the overall effectiveness of the contents in respect of their relevance to objectives, impact on your work and effectiveness in changing your orientation and ability to perform the tasks more effectively.

Effectiveness dimensions of the Contents	Effectiveness (Extent)			
	Highly effective (4)	Effective (3)	Moderately effective (2)	Not so effective (1)
(1) Relevance to the objectives				
(2) Practical utility in your back home situation				
(3) Changing your knowledge/ Orientation to the subject				
(4) Increasing your capability				

2.1. In your opinion what are the topics, those should be included in the course to make it more effective ? (if necessary, attach separate sheet)

(1)

(2)

(3)

(4)

2.2. Which topics to you think, could be deleted from the course to make it more focused : (if necessary, attach separate sheet)

(1)

(2)

(3)

(4)

3. Use of Training Methods and Materials

3.1. Effectiveness of training methods :

3.1.1. In your opinion, how effective were the use for various training methods for addressing different topics during the course ?

[The format should be typed in a separate sheet and need to be provided to the participants individually on the specific day along with the faculty effectiveness sheet. Evaluation of effectiveness of training methods should be done at the end of respective sessions]

Sl. No.	Name of the topic and the training method applied	Extent of Effectiveness			
		Highly effective (4)	Effective (3)	Moderately effective (2)	Not so Effective (1)
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

3.1.2. Suggest training methods which could have been more fruitfully used for addressing specific topics in the course

Sl. No.	Name of the topic(s)	Suggested alternative training method
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

3.2. Effectiveness of training materials :

3.2.1. How adequate do you think the following training materials in meeting the requirements ?

Sl. No.	Trainig Materials Used	Adequacy			
		Highly Adequate (4)	Adequate (3)	Moderately Adequate (2)	Not so Adequate (1)
1.	Reading material				
2.	Handouts				
3.	Audio Visual Aids				
4.	Any other(Specify)				

3.2.2. How was the quality of these training materials ?

Sl. No.	Training Materials used	Quality			
		Excellent (4)	Very good (3)	Good (2)	Not so good (1)

1. Reading material
2. Handouts
3. Audio Visual Aids
4. Any other(Specify)

4. Faculty Effectiveness :

How do you rate the effectiveness of each of the speakers addressing various topics during the course ? Kindly give your response in the appropriate column of effectiveness against each topic and speaker by giving tick () mark.

[The speakers' evaluation should be done by each participant individually at the end of the respective sessions. Names of the topics and speaker alongwith effectiveness columns should be provided at the beginning of the training day to the participants in the following format]

1. Name of the Course and Duration
2. Date of Evaluation

Sl. No.	Name of the topic alongwith the Speaker	Effectiveness Score			
		Excellent (4)	Very good (3)	Good (2)	Not so good (1)

- 1.
- 2.
- 3.
- 4.

5. Effectiveness of Physical Facilities :

How effective were the following components of the physical facilities during the course ?

Sl. No.	Items of Physical Facilities	Extent of Effectiveness			
		Very effective (4)	Effective (3)	Moderately effective (2)	Not so effective (1)
1.	Classroom				
2.	Hostel				
3.	Cafeteria				
4.	Medical				
5.	Sports and Recreation				
6.	Library				

6. Adequacy of the Duration :

What do you think about the present duration of the Course (give tick mark in appropriate space)

() Adequate
() Could be increased (specify)
() Could be decreased (specify)

1.11.4. Computation of Evaluation Score

I. QUANTITATIVE

1. There are in all eight dimensions of the programme for which quantitative evaluation is contemplated. These dimensions are :

1. Relevance of objectives (RO)
2. Extent of Achievement of objectives (AO)
3. Effectiveness of the Contents(C)
4. Effectiveness of training methods (ETM)
5. Adquacy of training materials (ATM)
6. Quality of training materials (QTM)
7. Faculty effectiveness (FE)
8. Effectiveness of physical facilities (PF)

Step. 1

Scores in respect of each of the above mentioned dimensions should be computed separately for the entire group of participants to find out average effectiveness score for a particular dimension. For instance, the average effectiveness score for relevance of objectives should be calculated in the following manner :

$$(RO)_a = \frac{Ro_1 + Ro_2 + \dots + Ro_n}{n}$$

where, Ro_1, Ro_2 = relevance of objective score provided by the first and second participant

n = total number of participants who have responded to the particular item

$(Ro)_a$ = Average Effectiveness Score for relevance of objectives.

Following this method, the average effectiveness scores for all the eight dimensions are to be calculated.

Step 2

The overall Effectiveness Score of the Course will be calculated in the following way :

$$(OES)_c = \frac{[(Ro)_a + (Ao)_a + (C)_a + (ETM)_a + (ATM)_a + (QTM)_a + (FE)_a + (PF)_a]}{8 \times 4} \times 100$$

where, $(Ro)_a, (Ao)_a, (C)_a, (ETM)_a, (ATM)_a, (QTM)_a, (FE)_a$ and $(PF)_a$ are average effectiveness scores for the respective dimensions, and

$(OES)_c$ = Overall Effectiveness Score of the Course in percentage terms

II. QUALITATIVE

There are four qualitative dimensions of evaluation of the course effectiveness which provide feedback from the participants in respect of new topics to be included, existing topics to be deleted, more effective training methods and the adequacy of the course duration with suggestion for the optimum.

While analyzing such qualitative information, those repeated by majority of the participants should be tabulated and incorporated in the course completion report.

1.11.5. Courses Completion Report - Format

The presently followed format of the course completion report may be revised to make it more focused for the corrective actions. The suggested format may deliberate upon the following:

- (a) Introduction to the course-objectives; number of nomination; actual number of participants and their break up; main focus of introductory session
- (b) Course design - No. of sessions; module - wise breakup of sessions and relative weightage (percentage of sessions under each module); training method wise break up of sessions and relative weightage.
- (c) Course evaluation :
 - (i) Qualitative information analysis
 - (ii) Overall effectiveness score of the course.
- (d) Remarks from the Course Director about the use of feedback in future course.

1.11.6. Follow-up of Training Effectiveness

Although as stated earlier in the beginning of this section, it is difficult to pinpointedly quantify the benefits of the training programmes in the back-home situation of the participants, still efforts may be useful to conduct post-training evaluation or follow-up of the programmes. Such evaluation or follow-up operations may be carried out in two stages.

Firstly, the participants of any particular training programme may be administered with mailed questionnaire after six months to assess the nature of back home utilisation of the training course as well as their suggestions for making the contents more pragmatic in the light of their experiences. A separate questionnaire may also be administered to the

controlling authority of the participants, to elicit responses regarding changes in effectiveness of later's performance.

Secondly, though time and resource intensive, subject to manpower and fund availability, samples of participants (to the tune of 20 percent) of a course may be selected for on-the-spot assessment of the extent of utilisation of the training inputs in performing their tasks and the consequent impact on the target groups of the programmes being managed by them.

1.12. Emerging Recommendations

The discussion made so far on the training plan lead towards a few broad recommendations for actions to be initiated to make the training activities of the academy more effective.

2.1. One of the characteristic features of the academy has been its tradition of integrated research-training-experimentation approach. This has also been identified by the faculty members as one of its important 'strengths', which, however, they felt was gradually falling apart. In order to facilitate revival of such integrated approach, it is important to reschedule the focus around thematic areas consistent to the accumulated experiences as well as present and future national and global scenario. Thus, the training focus need to be framed in conformity with the research and action-research focus.

2.1.1. The training focus, may concentrate on issues. related to 'productivity' 'institution building' and 'human resources development', the thematic areas persued most through research and action research, the product of which can become excellent training material resources.

2.1.2. Simultaneous consolidation of already available materials on the basis of long standing experiences of carrying out action research in 'women in development' and 'poverty alleviation' related issues. They may be developed into specific training materials and more concerted actions may be initiated for training in these areas, once the results are standardised.

2.1.3. As a long term perspective, current information base should also be developed and field-based research projects be initiated on 'environment' and 'disaster management' related areas to create training material resources with an aim to concentrate on these areas through training.

2.2. The following categories of training programmes may be conducted for addressing appropriate clientele groups with carefully designed modules.

2.2.1. There can be a category of core programmes on rural development, aimed at varied target groups like BRDB functionaries, policy making and civil services officials, local government officials and non-officials from government and non-government organisations.

Different sets of modules of these courses need to be developed, appropriate to the needs of the clientele as well as the training objectives.

2.2.2. The present structure of certificate courses may be broad based by incorporating suitable new programmes as per the demands expressed by the client organisations.

Officials managing development programmes at upazila level, representatives of local institutions, NGO representatives associated with development programme and academicians connected with education and research in rural development related areas may become the clientele.

Course curriculum for such programmes should be developed in consultation with the clients' organisations which expressed demands for such programmes.

2.2.3. The Academy has to perform the role of think-tank for the government in deciding its policy on rural development. In performing such task, besides undertaking research, regular workshops, seminars and conferences on contemporary national issues will help consolidation of intellectual information base on the topic.

Moreover, the Academy's rich experience in institution building efforts has already been recognised by a number

of international organisations by way of sponsoring regional training courses for Asia Pacific and African Countries. More and more such demands have to be met by the Academy by consolidation of the experiences of various kinds of programmes.

- 2.2.4. As a long term measure, the experiences of core as well as specialised programmes may be consolidated so as to launch degree/diploma programme after careful need assessment.

The prospective clientele for the degree/diploma programmes on rural development may consist of mid level officers from various government and non-government organisation and also unemployed graduates (with assurance of sponsorship).

Curriculum planning exercise should be initiated as a long term measure for evolving contents of degree/diploma programme on rural development.

- 2.3. Training materials' consolidation may be undertaken in the following three phases :

- 2.3.1. The already available training materials like case studies, illustrations, simulation exercise, role play, video cassettes, films etc. from within as well as outside the academy need to be consolidated for immediate benefit of their use by the faculty members.
- 2.3.2. Academy's own resources of case studies need to be further strengthened by allocation of specific research topics (by following RRA technique as one of the methods) on various thematic areas to the faculty members.
- 2.3.3. The handouts distributed in the training programmes by mentioned according to thematic groupings identified, so as to consolidate them in future as training material resources on a particular subject or theme.
- 2.3.4. As a long term measure, the academy should concentrate on developing its own resources of training materials like video cassettes, slide-cum-tape presentation etc. on selected thematic areas of rural development.

- 2.4. The faculty resources, both academy's own as well as eminent guest speakers, should be utilised for the best interest of the training programmes.

- 2.4.1. In order to help consolidation of training materials and information resources around specific thematic areas, the faculty members, depending upon their specialisation should be asked to opt for one or two thematic groupings. Members of such thematic groupings should be encouraged to collect all available information on the subject(s) so that in long term they would be considered as repository of information on the particular thematic areas.
- 2.4.2. An inventory of eminent resource persons available in Bangladesh in various specialised areas relevant to the training focus of the academy, should be maintained and constantly updated.
- 2.4.3. Training responsibility (both in terms of programmes and sessions) should be allocated to the faculty members on the basis of their specialisation and contribution in a particular thematic grouping. A panel should be maintained to decide the course coordinators for courses of general nature.
- 2.4.4. Training of faculty members (both in country and abroad) should be arranged strictly in line with their subjects as well as job specialisation in the academy.
- 2.4.5. To facilitate career planning of the faculty members, each of them should be allowed uninterrupted chance of acquisition of expertise of training, research and action research in his/her particular field of specialisation.
- 2.4.6. To enable proper utilization of action research results in training programmes, the project team should primarily consist of the faculty members according to their specialisation and experience. This will also facilitate proper retention of the experience within the faculty, even after expiry of such projects.
- 2.4.7. The academy should decide on relative extent of training load for faculty members vis-a-vis research and action experimentation, appropriate to the focus contemplated for a specific time-frame. This will enable more efficient utilisation of time of faculty resources towards various mandatory functions.
- 2.5. The financial resources for training may be mobilised in the following ways:
 - 2.5.1. The ministry of LGRD should be approached to enhance the allocation of training budget of the Academy, so that it should be possible for it to float at least 50 percent of the training programmes on its own.

2.5.2. The demands expressed by the various clients' organisations with assured funding, need to be more fully explored so as to enter into long term agreement of meeting the entire training requirements of specific organisations.

2.6. The audio visual support available for training at present, needs to be improved by adopting a few corrective actions :

2.6.1. For facilitating proper growth and functioning in the communication section, it should be placed under the independent control of the Joint Director (Development Communication) till it becomes a full-fledged division.

2.6.2. All the conference/lecture halls should be provided with appropriate facilities like darkening arrangements, public addressing system, electrical switch controls and audio-visual aids etc. for increasing training effectiveness.

2.6.3. The presently available highly deplorable flip chart and flannel boards should be immediately replaced with new ones.

2.6.4. The graphic facilities like tracing table need improvement through suitable replacements of the ground glass.

2.7. A network should be established with the related organisations like RDTI, RDA, GTI, BRDB etc. to develop and exchange training materials as well as faculty resources.

2.8. To make evaluation more meaningful and to enable utilisation of the feedback towards improving future courses, the present formats of evaluation proforma as well as the course completion reports need revision.

These recommendations need to be examined in the light of prioritisation of the academy's activities in the form of research, action research and training. However, the training activities irrespective of the weightage it receives in such prioritisation, if organised in the above lines will have a solid foundation on the accumulated experiences of the faculty members and be able to cater to the needs of the clientele more effectively.

G L O S S A R Y O F T R A I N I N G T E R M S

1. ABC APPROACH :

A check-list which serves as an aid in problem-solving. Ideas, stimuli are offered in an A to Z format to provoke ideation.

2. ACHIEVEMENT TEST :

A test that measures the extent to which a person has achieved something, acquired certain information, demonstrated proficiency in certain skills-usually as a result of instruction.

3. ACTION-LEARNING :

Learning is accomplished by doing and experiencing as opposed to listening, observing, reading, viewing (audio-visual materials), etc., synonymous with experiential and discovery learning. Also called discovery learning.

4. ACTION-PLAN :

A specific, concrete "blue-print" to accomplish something on the job as a result of a given training experience. It is also known as a contract; the process is called contracting.

5. ACTIVE CASE STUDY :

When project teams have to meet, work pressures and travelling difficulties can all interfere with the successful completion of the task. To overcome this problem,, project work conducted by groups of managers is based around a case study which has been researched before the beginning of the management development. Project team participants are given access to operating data, have the opportunity to visit the site concerned and view prerecorded interviews with the managers involved. They are required to make a report on their findings and proposals which are based on both inputs received during the course as whole and on their own detailed group study of a particular problem.

6. ACTIVITY LEARNING :

Learning that requires active participation of the participant in such exercises as project work and group experiences and instrumentation

Source : Rao, D. Chitra and Chakravarty, T.K. from Enhancing Trainer Role Effectiveness. Selected Readings, NISIET, Hyderabad, India, 1992.

7. ACTIVITY:

Generic term for participative training experiences such as exercises, games, role play, small group experiences and instrumentation .

8. AFFECTIVE LEARNING :

Those aspects of learning that involve emotions, feelings, and attitudes.

9. ALGORITHM :

An algorithm is a systematic plan which reduces problem-solving to a series of comparatively simple operations and indicates the order in which the operations should be carried out. They are recipes or sets of instructions which are usually presented in the form of a family tree.

10. ANDROGOGY :

The study of adult education and specially its methods of teaching and learning.

11. APPLICATION/APPLICATION SIMULATION SESSION :

A formal (classroom) attempt to aid in transferring the training to the job situation.

12. APPLICATION :

Transfer of the classroom training to the job situation

13. APPRENTICESHIP PROGRAMME :

It refers to a contractual relationship between an employer and an employee in which the latter is trained for prescribed work by obtaining personal experience under the supervision of a master craftsman or by formal instruction.

14. ASSESSMENT :

A process whereby the trainer attempts to find out about the knowledge, attitudes or skills possessed by a participant.

15. ASSIGNMENT :

A learning task which a participant is expected to carry out without help from the trainer possibly as homework.

16. ATTITUDE :

A person's tendency to feel about and act towards certain people (or situations, objects, ideas) in a particular manner.

17. ATTRIBUTE LISTING :

Identifying or listing all the attributes or characteristics of a problem, product, or process and then systematically examining them.

18. AUDIO-TAPE/CASSETTE :

Magnetic tape used in reel-to-reel or cassette tape-recorders (or tape-players) to record and reproduce sound. (Contrasts with video tape which carries pictures as well.)

19. AUDIO-VISUAL AIDS (AVA):

Equipment and devices for presenting recorded sound and /or visual images for educational purposes. Includes both the hardware (presentation devices like film projector, television receivers, tape-players) and software (the film, video-tapes, audio-cassettes) that carry the educational content.

20. AUDIO-VISUAL :

Term used of teaching methods and materials that involve the use of audio-visual aids.

21. BASIC ENCOUNTER :

Basic encounter method was developed by Carl Rogers and his colleagues in Chicago. Participants usually sit on chairs throughout and there is little or no physical interaction. The leader who is called a "facilitator" offers no techniques and does not have to adopt any particular role except that of an open participant ready to reveal his feelings and show interest, care and involvement in the talk and actions of group members. He may also share his intuitions or fantasies about other members, not as truths about other people, but as truths about what is going on around him.

22. BEHAVIOUR MODELLING :

A form of structured role-playing wherein participants enact roles as provided by "good models". Critique is provided by the trainer and the group to ensure proper skill development. Positive re-inforcement is stressed throughout.

23. BEHAVIOUR MODIFICATION:

A system to influence behaviour, performance or learning based on the assumption that behaviour is a function of its consequences.

24. BEHAVIOUR RATING SCALE :

An instrument used to record judgement about the incidence or nature of the behaviour of a given individual or group. Such judgments will be influenced by subjective factors.

25. BEHAVIOUR :

The actions and reactions of persons or animals under specific circumstances. In psychology this is the response made by any organism (example: a person) to a stimulus which may be internal (example: thought) or external (example : someone else's question).

26. BEHAVIOURAL OBJECTIVES :

A statement of intent much more precise than aims and quite specific as to the learned behaviours the participant is expected to be able to exhibit as a result of teaching.

27. BEHAVIOURAL SCIENCES :

Academic disciplines concerned with scientific study of human behaviour- such as psychology, sociology, anthropology, etc.

28. BEHAVIOURISM :

A psychological theory that emphasizes the analysis of observable behavior.

29. BEHIND THE BACK TECHNIQUE :

A way of discussing a completed role-play. The role player being critiqued turns his /her back to the group, thereby facilitating the giving and receiving of the feedback.

30. BOARDS (BLACK/CHALK, WHITE):

Flat surfaces to write on. Chalk-boards or Black-boards as they are also called, are rectangular wooden board's painted black, dark green or other dark colours, on which chalk sticks are used to write. Instead of wood or ply wood, ground glass surfaces are also used.

White boards are a much newer invention. These are smooth white-colored boards with a smooth surface that you can write on with erasable alcohol-based markers.

31. BRAINSTORMING :

A basic and highly popular tool for group problem- solving. It can be used to identify problems, to suggest causes for problems and to propose solution for problems. The technique emphasizes deferred judgment to get quality.

32. BULLETIN BOARD :

A panel of cork, wool or other soft materials to which pictures, notices and other display material may be pinned.

33. BUZZ GROUP :

A small group that works on an assigned task; its conversation produces a "buzzing" sound, hence the term.

34. BUZZ WORDS :

Generalized words to describe a problem, such as "communication" or "morale", which no one really understands and which inhibit the problem definition/problem-solving process.

35. CARD-POSTING TECHNIQUE :

Generating ideas on slips or cards and pasting them on the wall for better visualization of them. Cards thus may be readily modified, removed, prioritized, grouped, etc.

36. CAREER/LIFE PLANNING :

Career/life Planning is one of several forms of career development approaches and involves the application of laboratory learning techniques to career development. It tends to use the idea of individual goal-setting, values clarification and achievement motivation as a means of helping the participant to gain greater control of his life.

37. CAROUSEL

Rotary slide magazine usually holding 80 or more slides.

38. CARREL :

A small enclosed space in a library, resource centre, language laboratory, etc. designed for individual or private study (may have VCR, computer, etc.)

39. CASE HISTORY :

A case history is a specific and straightforward account of an actual event or situation which is intended to inform the reader or listener of the essentials. The case history may merely record a series of events or be a distillation of a trainee's experience brought to the group or tutor for discussion. It can be made the subject of study or analysis in any desired way.

40. CASE METHOD (ALSO CALLED CASE STUDY METHOD):

A teaching method used particularly in management education whereby a real or hypothetical situation is presented to participants (through verbal description, film, facsimile documents etc.), so that they can discuss it and suggest possible solutions to the problem, they identify within it. The method was developed originally by the Harvard Business School.

41. CASE-LIVE CASE

A case or problem of a current nature presented by a manager to a training group; to be distinguished from the usual "canned" or already described case.

42. CASSETTE RECORDER:

A machine for recording sound (or video cassette sound and moving pictures) on magnetic tape that runs within a sealed container that can be removed from the machine intact.

43. CHANGE :

Any planned or unplanned alteration of the status quo in an organism, situation or process.

44. CHARTS AND POSTERS :

These are flexible, uncomplicated audio-visual aids, Easy to make. There are three types : the standard flip chart also called newsprint (a pad of blank paper suspended on an cast); prepared charts which may be in a flip format or in separate sheets and posters which are displayed in the training room or work-place.

45. CHECK-LIST :

A list of behaviours, observations, or characteristics each of which is checked (or answered "yes") by the rater observer to have occurred satisfactorily or not satisfactorily.

46. CIRCLE ARRANGEMENT :

The circle setup is simply a circular grouping of desks or chairs. Encourages participation.

47. CIRCULAR WHIP :

A participative device, wherein the trainer scans quickly around the room to elicit ideas, decisions and feelings from all participants in the group.

48. CLIENT-CENTERED/CLIENT-ORIENTED APPROACH:

Utilizes procedures to ensure that processes of ideas generation (content) are not inhibited by faulty group process.

49. CLINIC/CLINIC MEETING:

A meeting of a group of people for the purpose of diagnosing, analyzing, and seeking solutions to specific problems. The group usually confronts real-life situation to strategy to meet them more successfully. Often case come out with a studies, demonstrations, role-plays, speeches, field-trips and shared real-life experiences form the basis for the diagnosis and solution of problems.

50. CLOSED CIRCUIT TELEVISION : (CCTV) :

Television system used within education or training where the signal is not telecast to the general public but is transmitted to a restricted number of receivers connected through cables.

51. CLOSED-ENDED QUESTION:

Questions demanding a specific, often detailed answer. Example : where can this information be obtained? Sometimes the answer can be simple yes or no, but always a specific answer is demanded.

52. CO-TRAINING :

The use of two or more trainers; also known as team-training. This approach has many benefits for both trainers and participants.

53. COGNITIVE DEVELOPMENT:

The progressive growth in one's ability to understand concepts and explain relationships.

54. COGNITIVE LEARNING:

Learning that emphasizes thought, (for example, memorizing, analyzing , evaluating) rather than feeling or movement.

55. COGNITIVE OBJECTIVES :

Learning objectives those stimulate the cognitive process towards acquisition of knowledge (example, thinking, problem-solving) rather than externally observable behaviour or skill.

56. COLLABORATIVELY DESIGNED COURSE :

This involves trainer and participants together designing a course to be run.

57. COLLOQUY :

A colloquy is a modification of the panel, using six to eight people. Three or four of the people are resource person or experts, as in a panel. However, in addition to the experts, three or four people representing the audience also sit on the stage. These people ask questions, express opinion, and raise issues to be treated by the experts. A moderator usually directs the proceedings.

58. COMMITTEE :

A committee is a small group of individuals appointed or elected to perform a task that cannot be done efficiently by the larger parent group. A committee is usually appointed and authorized by the parent group and remains responsible to it. There is a presiding officer who is usually nominated but sometimes elected by the group.

59. COMPLETION ITEM :

A short answer test question calling for the filling in of an omitted word or phrase.

60. COMPUTER SUPPORTED LEARNING RESOURCES (CSLR):

A computer supported learning resource is any form of computer support or function that facilitates learning other than those which teach (Computer Aided Instruction-CAI) or test, prescribe or keep records (Computer Managed Instruction-CMI). A CSLR is often a data base, similar in purpose to a traditional non-computer learning resource, the library. CSLR or CAI are the components of CBL (Computer Based Learning) an umbrella term.

61. COMPUTER-AIDED INSTRUCTION :

The computer actually instructs and the participant interacts with the computer.

62. COMPUTER-ASSISTED LEARNING:

The use of the computer as a teaching medium or learning resource. The computer controls the presentation of instructional material to a participant seated at the terminal on the basis of the participant's previous responses. The computer adapts teaching to the individual. The model is derived from Skinner and the Programmed Learning movement.

63. COMPUTER-MANAGED INSTRUCTION :

The computer directs the participant to perform specific tasks such as to read a chapter of a book, perform several steps on a machine, solve a set of problems. Upon completion of the task, the computer tests the participant as to what has been learned. Computer directs the participant to remedial work or more on to the next level depending on the answers.

64. CONCEPT FORMATION :

The process of discovering the distinguishing features attached to a particular concept which enables us to use it appropriately.

65. CONFERENCE METHOD :

A conference is a group composed usually of 12 to 50 persons who represent different organisations, departments, or points of view but have some common interest or background. They gather information and discuss mutual problems, with a reasonable solution as the desired end. Problem identification and solution is often the objective of a conference. The conference is also used to exchange information and to improve cooperation.

As a training method it provides opportunity to receive current information about a problem area or to exchange views on pertinent problems.

66. CONFERENCE TABLE ARRANGEMENT :

Tables and chairs arranged in a rectangular setting. Good for discussion with a formal leader not conducive for role-plays etc.

67. CONTENT ANALYSIS :

A process of analyzing subjective data to establish the major conclusions or that emerge in curriculum development process.

68. CONTINUUM :

An array of ideas or concepts that if read from left to right provide a logical progression. Example : Styles of leadership, ranging from highly participative to highly autocratic; or a rating scale of 1-7 concerning one's ability to listen effectively.

69. CONVENTION :

A convention is an assembly of representatives or delegates from local units of a parent organisation or from different organisations or professions who have a common interest. These people meet to explore and act on problems of common interest. A convention is a method which often uses a combination of other activities such as speeches, panels, forums and group.

70. CONVERGENT THINKING:

Thinking directed towards finding the one best, correct or conventional solution to a problem. Contrasts with divergent thinking.

71. CONVERGER :

A person who tends to be better at dealing with problems that have a single correct solution than with more open-ended problems to which a variety of solutions are possible. Contrasts with diverger.

72. CORRESPONDENCE COURSE / STUDY :

This includes all types of correspondence courses. Correspondence courses are a form of programmed learning. Participants receive units of work on which to do certain exercises which are sent off and returned with comments. The degree of participant pacing depends on the particular course, some have flexible time-tables and exams. others are very rigidly scheduled.

73. COUNSELLING :

A helping process in which the helper, through direct discussion, helps someone to learn to solve a problem or do a task, using a problem-solving approach. In the training situation it may mean advising participants on their progress, career related issues or personal anxieties.

74. COURSE WARE :

The technical data, textual materials, audio tapes, slides, movies, video cassettes and other AV institutional materials.

75. CRITERION-REFERENCE TEST :

A term used to describe tests designed to provide information on the specific knowledge or skills possessed by a trainee in relation to the scores made by some comparison or norm group.

76. CRITICAL INCIDENT TECHNIQUE / ANALYSIS :

A technique for the analysis of job performance based on identification of those events occurring in the course of a job those are so crucial that they reveal the style and effectiveness with which the person does his job.

77. CRITICAL PATH ANALYSIS :

A logical method of planning a complex project (example. the design, and implementation of than innovative curriculum) by analyzing it into sequence of contributory decisions and activities and then recording them on a Flow Chart in such a way that potential hold-ups can be identified.

78. CRITIQUING :

Feedback give for nay particular event.

79. CULTURAL ISLAND:

Isolated training location that enables participants to work and learn better, the distractions of the office or shop situation being absent.

80. CURRICULUM

Refers to the total structure of ideas and activities developed to meet the learning needs of participants and to achieve desired educational aims. Some people use the term to refer simply to the content of what is taught.

81. CURRICULUM DEVELOPMENT :

The deliberate process whereby an individual or a team identifies educational aims and objectives for a target group of participants, designs an appropriate curriculum including the choice of content, teaching methods and media, assessment techniques, tests the curriculum and improves it in the light of an evaluation of its effects and effectiveness.

82. CUTAWAYS :

Cutaways are models that show a cross-sectional view as if you had sliced away the outer part to reveal the inner workings. Cutaways are frequent in fields like medicine, mechanics and architecture.

83. DEBATE :

A participant-involving technique, structured formally or informally to generate varying viewpoints on issues or problems.

84. DELPHI TECHNIQUE :

An approach to forecasting or problem solving in which each of a group of experts is independently asked for his prediction or solution. The several answers are then circulated among the experts so that they can appraise them and if necessary, offer new ones.

85. DEMONSTRATION ROLE-PLAY:

An enactment of a problem situation by two or more players, with the rest of the group functioning as observers who subsequently may critique or discuss the action.

86. DIDACTIC TEACHING :

Traditional approach to teaching or instructing entailing the dissemination of facts, knowledge, information, manual skills, etc. To-day it is contrasted with experiential or discovery learning.

87. DIRECT QUESTIONS :

It is the same as open or closed ended question; it is called direct because it designates the respondent.

88. DISTANCE EDUCATION/LEARNING/TEACHING :

See Correspondence Course

89. DIVERGENT THINKING :

Thinking or learning style capable of producing many solutions to open-ended problems those have no single correct answers. Contrasts with convergent Thinking.

90. DIVERGER :

A person who tends to be better at producing many solutions to open-ended problems than at solving problems those having single correct answer. Contrasts with Converger.

91. DRAMATIC SKIT :

A demonstration-type role play presented to the group that closely follows instructions provided by the trainer. Its purpose is didactic as opposed to having an experiential growth orientation.

92. DYAD (PAIR) :

Two participants who work together in the training situation. The dyad is a means of securing involvement, intimacy, rapport and sharing.

93. EDUCATION:

The process of successful learning of knowledge, skills and attitudes where what is learned is worthwhile to the participant. Usually it is learned in such a way that the participant can express his own individuality through what he learns and can subsequently apply it and adapt it flexibly to situations and problems other than those he considered in learning it. The term education is used to refer to the above process and their outcomes.

94. EDUCATIONAL VISIT :

The educational visit is a short trip to provide first-hand knowledge or something which cannot be brought into classroom. The observation or study on location is particularly suited to helping the participant to relate theory to practice observing the object or action in its natural setting.

95. EMPTY CHAIR TECHNIQUE :

A dialogue in a role-play with an imagined person in an empty chair; the emotionality and insight is heightened by the single role player switching chairs and thus assuming both roles.

96. ENCOUNTER GROUP :

In an Encounter Group participants are encouraged to say what they really feel, and to feel what it is that they are saying or hearing or doing and generally to experience and share their own reality.

97. ENTRY BEHAVIOUR :

The behaviour on relevant aspects that participants actually do have at the beginning of the training programme. The complementary concept is Terminal Behaviour

98. EPISCOPE (ANOTHER NAME OF OPAQUE PROJECTOR):

A device designed to project images of opaque, flat objects onto a screen by using light scattered from the object.

99. EVALUATION :

The final phase of the training cycle. Its purpose is to assess training outcomes.

100. EXERCISE :

A structured training experience marked by a learning goal, high participation and structure. It's overall purpose is to generate data for participant analysis.

101. EXPERIENTIAL EXPERIENCE- BASED LEARNING :

Method allowing the participant to learn from experience; synonymous with discovery learning. To-day it is contrasted with traditional, didactic methods of instruction.

102. EXPERIENTIAL EXERCISE STRUCTURED EXPERIENCES :

These involve activities of a short specified length (half hour to three hours). Their goals tend to be specific and well-defined while outcomes tend to be predictable and uniform. They are structured in pre-planned steps and are run by following a time-table. The focus is not so much on what is done as on how it is done. Stress is laid on the process.

103. FACILITATOR :

A trainer who functions in a way to allow participants to assume responsibility for their own learning. The term is in contrast to the more didactic instruction, teacher, lecturer or presenter.

104. FACING CHAIRS :

A device to generate data about opposing positions on a problem, involving physical and verbal reversal of positions on the issue. The idea is to help participants to "see the other side" by arguing for it.

105. FADE-OUT

Loss of what was learned over time, in whole or in part.

106. FANTASY :

Creation of an imaginary picture by individual participants in response to a general (non-specific) idea/topic provided by the trainer. Example : "What if you were head of the company"

107. FEEDBACK :

Data received from or given to one or more participants concerning one's behaviour, attitudes and relationships in the training situation.

108. FICTITIOUS AND ABBREVIATED CASE :

Short case put together by using fragments from firsthand experience or from collateral reading, doctored to fit a specific purpose of some course director

109. FIELD THEORY :

The field theory places emphasis upon the concept that learning is a process of discovering and understanding inter-relationships, and of organising and finding significance in the sensory experience aroused by external situation

110. FIELD TRIP :

A planned visit to a given area, site, building or plant to study its operation in depth and to report back thereon. The field trip is typically a team project although not universally so.

111. FILM STRIP :

A series of simple images (slides) on a single strip of film, each of which is projected in turn.

112. FILM :

Films are usually professionally produced and action-oriented. Films are good for clarifying concepts and generic topics.

113. FISH-BOWL :

Also known as "in and out groups", this is a training device entailing a group activity, the inner group (A) serving as the discussion group and the outer group (B) the observation. Typically groups A and B reverse roles.

114. FIVE-M (5-M) ANALYSIS :

A structured format for problem-solving (especially identifying causes) using the five factors of manpower, machinery, materials., methods and money.

115. FLANNEL BOARD/GRAPH :

Flannel or felt boards are wooden boards wrapped in flannel . Cut-outs of felt in brilliant colours can be pressed onto the flannel surface.

116. FLASH CARD :

A card or other opaque material carrying words, pictures, or other information designed to be displayed briefly, usually by hand, during a programme of instruction.

117. FLIP-CHART :

A visual aid for use in teaching a group. It consists of a pad of very large sheets of paper which can be used for drawing or writing with a felt tip pen or a crayon and then each used page can be flipped over to reveal a clean one.

118. FLOW CHART/DIAGRAM :

A visual aid showing the sequence or sequences of logical steps in programme or plan of action.

119. FOCUSED ANALYSIS :

In case study discussants are provided specific issues for analysis as opposed to having the case presented to them on an open-end basis.

120. FOLLOW-UP TRAINING :

The provision of additional or post-course training to add new material and/ or reinforce what was learned in the regular training course.

121. FORCE-FIELD ANALYSIS :

A training device to assess the forces- favourable and unfavorable bearing upon a problem. Developed by Lewin.

122. FORCED-CHOICE TECHNIQUE :

An instrument that asks the participant to choose between two statements neither of which may be totally preferred. The choices typically produce a pattern on such things as on one's leadership style. Broadly, any multiple choice item in which the examinee is required to select one or more of the given choices.

123. FORUM :

Experts present diverse views but do not challenge one another as in a panel discussion or a debate. Audience participation is limited to posing questions.

124. FOUR-STEP METHOD :

Herbert's four steps of instruction:

Preparation :	Show
Presentation :	Tell
Application :	Do
Inspection :	Check

125. FUNNEL PATTERN OF TRAINING :

In presenting information one starts with the broad concepts and narrows it down until one is teaching the step-by-step how-to's of the subject. It is the pattern of deductive reasoning (from general to specific).

126. GAME :

An experiential training activity marked by a learning goal, competition, rules, scores or outcomes and winners and losers. Games may be content-laden or a "pure" game devoid of content.

127. GEOMETRICS :

An assignment presented orally or via work-sheet that requests the participant to make an artistic, graphic or illustrative statement in one or more squares, triangles, rectangles or other geometric figures. It is intended to encourage introspection.

128. GESTALT PRINCIPLES :

It means the whole is greater than the sum of its parts.

129. GORDON TECHNIQUE :

A form of problem-solving wherein a group of diverse experts are only given a general definition of the problem. The assumption is that a very precise definition of the problem will result in premature and unsatisfactory solutions.

130. GROUP DISCUSSION :

Group discussion is purposeful conversation and deliberation about a topic of mutual interest among 6 to 20 participants under the guidance of a trained participant called a leader. Maximum opportunity is provided for the individual participant to share his ideas and experiences with others.

131. GROUP DYNAMICS LABORATORY :

The primary focus of this form of training is on the group as a unit rather than on the individual, interpersonal or organisational determinants of behaviour. The approach is intended to help the participant to diagnose and intervene in group processes.

132. GROUP DYNAMICS :

Process of interaction of a group at work; includes such processes as communication, goal-setting, decision-making, support-giving and leadership.

133. GROUP FANTASY :

A highly imaginative story development by the total group. The basic, general input may be provided by the trainer or a participant. The group then embellishes it to form a "far out" mind picture.

134. GROUP ROLE-PLAYING :

A form of demonstration type role-playing utilising a group rather than a pair of role-players.

135. GROUP WORK :

Tasks performed by small groups of participants from within a class perhaps in connection with topic work, projects or a practical exercise. Membership of a group and its goals and methods may sometimes be decided by the participants or by the trainer.

136. GUIDED IMAGERY :

On the basis of a specific picture or image provided by the trainer, each participant develops a mind picture; for example, the trainer may offer the image of water-fall, cave or old house and ask the participants to go on from there.

137. HAND-OUT:

Short well-prepared self-study materials, supplementing class-room teaching.

There are a number of types of Handout. A Teaching Objectives Handout given before the first lecture lists the objectives of the course and sensitizes participant to what is to be learned. The Lecture Guide Handout seeks to guide participants through a difficult lecture enabling them to see the whole topic before any single part is considered. Note-taking Handouts summarize lectures so as to discourage note taking. Reading handouts are aimed at stimulating and guiding reading and can be issued in advance.

138. HANDS-ON-TRAINING :

Training that involves the trainee in actual physical contact with the environment in which he will work on completing training.

139. HOLISTIC :

Refers to an overall and integrative look at Organisation Development so as to examine human systems. It means whole or entire and is derived from the Greek word holos or whole.

140. HORSE-SHOE ARRANGEMENT :

An arrangement that seats participant at tables along both sides and across the back while leaving the front and center areas open for the trainer is referred to as horse-shoe. Excellent for demonstrations and role-plays.

141. HUMAN RELATIONS LABORATORY :

Laboratory learning is a term used to describe the process of learning about oneself and others, and the groups and organisations to which one belongs. A Human Relations Laboratory focuses on the exploration and understanding of interpersonal or between people relationships. Group Dynamics and Power Laboratories focus on group and organisational issues respectively.

142. ICE-BREAKER :

Structured, content-free training activity designed to help participants relax, get them acquainted with one another and energize them.

143. IDEA REINFORCEMENT TEAMS:

A highly participative form of problem-solving wherein each team member is required to listen to the ideas of the other team members and thereby develop the "best" solution to the problem.

144. IDEATION/ IDEA-WRITING

In problem-solving, the process of creating ideas as in a brain-storming session. The ideation phase is kept distinct from the evaluation phase to encourage the free flow of ideas.

145. IDEOGRAPHS:

Symbolic pictures used in lieu of written notes.

146. IMAGING;

A tool in problem-solving wherein a problem is assumed to be solved and one imagines or visualizes the conditions that existed before the solution was created. Also conditions may be visualized that will exist when a problem is solved.

147. IN-BASKET/IN TRAY EXERCISE:

A form of simulation training in which realistic work conditions and tasks are simulated by requiring the participant to make appropriate decisions and actions in responses to a sequence of letters, memos and other problem-posing documents supposedly reaching him in his in-tray.

148. IN-HOUSE MANAGEMENT PROGRAMMES:

Large organisations having an internal management education and training system to train their employees at different levels.

149. INCIDENT-PROCESS:

A variation of case-study wherein the discussion group is provided with a brief incident and then must ask the trainer for additional data. When enough facts are garnered, teams are formed to debate a solution to the problem.

150. INDIVIDUALIZED INSTRUCTION:

Individualized instruction refers to an instructional strategy which allows trainees to work at their own pace, through carefully structured course materials designed to accommodate individual needs.

151. INDUCTION TRAINING:

Training usually of brief duration intended to familiarize a new employee with the work he will be doing and the systems and people he will be interacting with.

152. INFORMAL ROLE-PLAYING:

Develops as the need arises in the training situation and thus is unplanned, unstructured, unwritten and unrehearsed.
(See Role play)

153. INSTRUCTION.

Often used as a synonym for teaching or even for education.

154. INSTRUCTIONAL OBJECTIVES:

Refers to objectives that define the expected outcome of an instructional process.

155. INSTRUCTIONAL TECHNOLOGY:

A synonym for educational technology, usually employing systematic design and testing of instructional materials directed towards specific instructional objectives.

156. INSTRUMENTATION:

A technique used in the training situation to assess, evaluate, describe, classify and summarise different aspects of human behaviour. These mostly consist of scales, inventories, check-lists, questionnaires, etc. designed to elicit data about individuals, teams, groups or the total organization.

157. INSTRUMENTED FEEDBACK:

This is the general term applied to the distribution to participants of questionnaires (or inventories) which they fill in and which are then collected by the trainer and marked by him. The method encourages active participation through personal involvement

158. INSTRUMENTED LABORATORY:

The Instrumented Laboratory derives its name from the intensive use of instruments such as questionnaires, tapes, video-recordings and so on which are used to generate data and facilitate the learning process in participants. Instrumented Laboratories can be conducted with or without the presence of a trainer or facilitator. The emphasis is on experimentation and on the quantitative representation of group processes.

159. INTERACTION:

Dynamics among participants, including communication patterns, relationships, role-assumptions etc.

160. INTERACTIVE VIDEO:

A video programme with which the user (trainee) and the programme interact. This means that the trainee does not simply watch a piece of film from end to end but is able to exercise a degree of control over the video programme. Because the programme user is able to control the programme, he is said to be interacting with it. The user's involvement is not passive but active. Since the programme requires actions and responses from the user, the interactive video is a combination of computer technology with video technology.

161. INTERNSHIP:

An Internship Programme is a period of supervised work experience generally leading to accreditation into a higher level of work competence.

162. INTROSPECTION:

A looking inward at one's attitudes, beliefs, values, perceptions, behaviours.

163. INVERTED FUNNEL PATTERN OF TRAINING:

In presenting information one starts with details and more gradually to the broader concepts. Also called inductive reasoning (from specific to general).

164. JOURNAL OR JOURNALING:

A device for the capture in writing of one's feelings, attitudes, values as one undergoes a given set of experiences. It is intended to give one insight or self-awareness about one's motivations, behaviour.

165. JOURNALIST'S SIX QUESTIONS:

Entails the use of the questions: who? what? when? where? why? and how? to resolve a problem.

166. JURY TECHNIQUE:

A form of problem-solving, entailing the search for the real problems and full evidence rather than for villains or scapegoats.

167. KNOWLEDGE:

The body of information and understanding which individuals acquire through life-experience and through education.

168. LAWS OF LEARNING:

Edward Thorndike developed two fundamental laws of learning, viz.-

(a) law of habit formation: the right movements can be put in the proper sequence and practiced until they become routine.

(b) the law of effect: a response is strengthened when a task is performed correctly, while annoying or less satisfying responses are weakened.

169. LEADERLESS GROUP DISCUSSION:

It is used as a learning method to encourage participants to solve problems on their own through mutual participation, criticism and correction. The group is leaderless because the trainer's presence would not help the realization of learning objectives.

170. LEARNING EXPERIENCE:

Any event created for example. by a course, a lesson, or a book that was intended to help a participant learn or that results in his doing so whether intended to or not.

171. LEARNING OUTCOMES:

The knowledge, attitudes and skills that the participant acquires as a result of some learning experience.

172. LEARNING PACKET :

Materials provided to participants essential for the learning experience.

173. LEARNING SEQUENCE :

A systematized approach to session design entailing a listing in grid or chart fashion the following elements :

- Skill area/activity to be worked on,
- training method,
- specific task or assignment,
- rationale for the assignment
- time for all tasks.

174. LEARNING STYLE :

A participant's habitual manner of learning, thinking or problem-solving.

175. LEARNING THEORY :

Body of theory produced by different schools of psychology to explain what comprises learning and or how it takes place or fails to take place.

176. LEARNING :

A long-lasting change in knowledge, attitude or skill acquired through experience.

177. LECTURE METHOD :

A lecture can be defined as an organised oral presentation of subject matter on a definite topic prepared for a specific purpose by the instructor.

178. LECTURER :

The term can be used for any person who uses the lecture method.

179. LECTURETTE :

Short talk with a view to explain some concepts in brief. In experiential learning, facilitators often use lecturettes to relate experience with concepts.

180. LESSON PLAN :

A trainer's outline of what he hopes to accomplish with the participants during a particular session. It may list aims, and objectives, main teaching points, media and resources, teaching methods and method of assessment.

181. LESSON :

An individual session with a course, during which trainer and participants concentrate on a particular topic. The term may also be used for each section, concerning a separate topic within a self-instructional course.

182. LIKERT SCALE :

An attitude scale in which the test taker is given a series of attitude statements and responds by choosing one of given choices : strongly agree, agree, undecided, disagree, or strongly disagree.

183. MAGIC WAND TECHNIQUE :

A form of fantasy in which the participant is given total power to mould, change or control a given situation, event or relationship.

184. MATCHING ITEM :

A short answer item, in one list, which the participant must associate with entry in another list.

185. MEDITATION :

A silent, relaxing activity designed to encourage psychological re-grouping, renewing one's energies, getting in touch with one's feelings, etc.,

186. MENTAL IMAGERY :

Creation of mind pictures by one's self on command, i.e., the stimulus is internal rather than external.

187. METAPHOR:

A tool in problem-solving in which a word or phrase is used as a reference to suggest a resemblance to something else, example. the ship of state.

188. METHOD / METHODOLOGY :

Special form of procedure especially in any branch of mental activity. A plan or system of action, inquiry, analysis, classification or arrangement.

189. MICRO FICHE READER

A projector by means of which an eye-reading image of one or more frames of microfilm can be produced for individual or group studies.

190. MICRO-LAB :

A planned selection of activities from amongst the many possibilities that exist within laboratory learning. The aim of these methods has been to help people to learn about themselves, their relationships with other individuals, with other groups and the organisation to which they belong.

191. MICRO-TEACHING:

It is a process of training the trainer. It attempts to give the trainer one skill or one concept, and requires him/her to teach it to a group of six participants in a period of six minutes. The idea is that the trainer is able to recognize the "Learning difficulties" of participants then and there, and develop strategies for effective teaching.

192. MINI-COURSE:

It is a fully self-contained, flexible miniature course for individuals and groups which is based upon an educational technology model and involve a variety of media and strategies appropriate for adult participants. It is an independent miniature course and is different from the type of module which may go towards making up a unit of some extended programme. A Mini-course has clearly defined objectives which are achievable in a short time span, usually a few days or less.

193. MIRROR TECHNIQUE:

In role-playing wherein a member of the group or the trainer mirrors the feelings of another role-player. It is particularly useful when the original role-player is experiencing a block or impasse.

194. MOCK-UP:

A full sized replica built accurately to scale, but not the real object.

195. MODEL:

A conceptualization designed to present a rather complex body of information or ideas in a relatively easy-to-understand way. Examples: The Johari Window; Maslow's Hierarchy of Needs.

A model also refers to a miniature of the real object.

196. MODULE:

The term is used to refer to a self-contained cluster of concepts which are presented to the participants through instructional channels which are appropriate to the "nature" of the knowledge contained therein. Thus a module may be a semi-programmed and self-paced unit. In all cases it tends to be designed to achieve highly specific objectives in a short time of several days. It can be packaged for use as an independent learning resource and may or may not be a unit of some extended course. The basic idea of modular instruction is to offer individual units that cover the major content areas of the course.

197. MONOLOGUE:

A form of case, entailing thoughts projected by one person.

198. MORPHOLOGICAL ANALYSIS:

An idea-generating technique that entails relating several variables of a problem to aid in finding a new solution.

199. MOUSE-TRAP TECHNIQUE:

A form of case involving multiple situations designed to point out that participants' thinking may be inconsistent, rationalizing and tolerant of a double standard.

200. MULTIPLE CASE TECHNIQUE:

A form of case involving the analysis of several related cases or incidents.

201. MULTIPLE CHOICE INSTRUMENT:

An instrumented format requiring the participant to select the one statement out of several statements with which he/she agrees. Typically the choices produce a pattern such as of one's managerial style.

202. MULTIPLE GROUP ROLE-PLAYING:

The use of small groups or teams to resolve a problem having multiple characters. In this format, all participants "play" regardless of group size.

203. MULTIPLE ROLE PLAYING:

Role playing formats that permit all participants to engage in role plays at the same time.

204. MULTIPLE ROLE TAKING:

The assumption of a single role by two or more participants. The objective is to generate more data about the problem, relationships, pre-conceptions, etc.

205. NEED DETERMINATION / NEEDS ANALYSIS:

The study of some person's or group's needs perhaps with a view to providing teaching or designing appropriate training interventions to satisfy them.

206. NETWORK:

A Network is an institutional model or an organisational principle which might be described as consisting of several "threads" or relationships of communication held together by "knots", or individuals, who learn from and help one another, while they solve specific problems.

207. NETWORKING:

A post-program effort by participants to "keep in touch" so as to lend support to one another and to help learning "glue in".

208. NOMINAL GROUP TECHNIQUE:

A tool for problems-solving entailing individual, silent work. Interaction is purposely limited so that ideation will not suffer due to premature evaluation or social pressure.

209. NON-DIRECTIVE TEACHING:

An approach to teaching in which the trainer aims to help the participant identify his own goals and find his own best way towards them without imposing a structure on him.

210. NON-FORMAL EDUCATION:

Education taking place outside of schools, colleges and universities and aiming to develop knowledge, skills and attitudes that are not normally given prominence in formal educational institutions.

211. NORM REFERENCED TEST:

Term used to describe test designed to provide information on the performance of test taken relative to one another.

212. OBJECTIVES:

An important term in curriculum development and educational technology. Sometimes it refers in a general way to any learning goal or desired outcome of education. Often, however, it refers more specifically to explicitly worded statements indicating the behavior that participants should be able to exhibit in some measurable form (same as behavioural objectives).

213. OBSERVER:

A non-participant member of the group who observes and reports back on activity in a role play, game, exercise, small group, fish-bowl. The rationale is that an "outsider" can see behaviour more objectively than the person engaged in the activity.

214. OFF-THE-SHELF PROGRAMS:

An off-the shelf program is a complete package ready for the trainees. These programs are mass-produced like books, hence the name "off-the-shelf".

215. OFF-THE-JOB TRAINING:

Training provided at some place other than the trainee's place of work.

216. ON THE JOB TRAINING:

Training that takes place while the person continues to work on his job. Much of the learning is derived from working on tasks that help the employee to acquire new skills as well as to meet his obligations as an employee. Ideally this is a result of well planned programme of training worked out by the organization.

217. OPAQUE PROJECTOR:

See Episcopes

218. OPEN LEARNING:

Open learning is an umbrella term which is used to refer to a wide range of different learning systems which have the characteristics of being generally both participant centered in terms of their learning focus, and flexible in the way in which the participants can use them.

219. OPEN-ENDED QUESTIONS:

Questions that leave the respondent free to formulate his/her response. This encourages discussion and allows a variety of responses.

220. ORGANIZATION DEVELOPMENT (OD):

The use of planned interventions to augment organizational effectiveness and health.

221. ORGANIZATIONAL CHANGE:

Any planned or unplanned alteration of the status quo that affects the structure, technology or personnel of the total organization.

222. ORGANIZATIONAL GROWTH:

The concept that organizations are complex organisms having a life cycle with stages of development commencing with birth and progressing through survival to later stages of maturity.

223. ORGANIZATIONAL RENEWAL:

The process of initiating, creating, and confronting needed changes so as to make it possible for organizations to become or to remain viable, to adapt to new conditions, to solve problems, to learn from experiences and to move toward greater organizational maturity. It is the application of the planning, development, and problem-solving process to the overall functioning of the organization in such a way that it strengthens the physical, financial, technical, and human resources. It helps the organization to mature and be responsive to the environment.

224. OVER-HEAD QUESTIONS:

A question asked to the group at large and anyone can answer it. It puts pressure on everyone to think of the answer. It engages the group and gets each member involved mentally if not vocally. It can be either open or closed-ended.

225. OVERHEAD PROJECTORS:

Over-head projectors shine a beam of light through a transparent sheet to a mirror suspended above which projects the image on the transparency onto a larger screen. Good for presentation of diagrams, figures of portions of text.

The advantage in this is that the trainer continues to face the participants when using the projector. He can use a pencil and use it on the transparency to draw the attention of the participants towards any specific matter on the screen.

226. PANEL / PANEL DISCUSSION:

A Panel Discussion is defined as a small group of persons, usually between three and six, who are usually seated at a table in the presence of an audience and discuss a topic of which they have a special knowledge.

A skilled panel leader or moderator, who usually prepares questions in advance to stimulate the discussion, can extract points from the panel and develop an informal atmosphere, which can add to audience knowledge and appreciation. In the strictest definition, there is no audience participation in the panel.

227. PANEL-FORUM:

A panel-forum is a panel which is immediately followed by an audience-participation period involving free and open discussion by the panel members on questions submitted by the audience. A moderator usually acts as a go-between for the panel members and the audience. Questions can be presented directly from the floor by members of the audience, or they can be written on cards collected and read by the moderator. Sometimes questions are collected from the audience in advance by the moderator.

228. PARETO DIAGRAM:

Bar chart used to show graphically the major problem or major causes for a problem.

229. PARETO'S ANALYSIS:

The 80/20 principle used in problem-solving (20% of the efforts contributed to 80% of the results). It tells us how to separate the significant few from the trivial many.

230. PARTICIPANTS-CENTERED LEARNING:

See Participant-centered training.

231. PARTICIPANT-CENTERED TRAINING:

A training situation wherein participants are given the opportunity to assume responsibility for their own learning.

232. PARTICIPANT-CONTROLLED INSTRUCTION:

A method wherein the participant exercises considerable control over instructional decisions.

233. PASSIVE LEARNING:

Kind of learning expected of a participant who is taught without being given any opportunity to make any active response or contribute his own experience or understanding to what is being discussed. He is expected only to be passive receiver of knowledge or information.

234. PEDAGOGY:

Pedagogy is the art and science of teaching children, contrasted with androgogy.

235. PERFORMANCE TEST:

A test usually involving some motor or manual response on the test taker's part, generally a manipulation of concrete equipment or materials as contrasted to a paper-and-pencil test.

236. PERSONAL ANALOGY:

In problems-solving one takes on the identity of an object or person "gets inside of it" to understand it better and thus change or improve it.

237. PERSONAL GROWTH ENACTMENT:

A demonstration role-play acted out with few or no guidelines, subject to group critique.

238. PIGOR'S INCIDENT PROCESS:

Variation of the orthodox case method.

239. POINTER:

An wooden extension held in the hand to direct or focus attention on material written on the blackboard or projected on the screen.

240. PRE-WORK:

An assignment to participants in advance of the training. It is resorted to when the trainer feels that advance preparation will facilitate one's easing into the program, stimulate participants' curiosity about it, or in any other manner help participants' learning.

241. PREDICTION:

By asking participants to predict an outcome in a film/video how a particular character will behave in it, or the nature of a concept before it is explained, the trainer may seek to excite interest and involve participants early in the course of presentation.

242. PROBLEM CENSUS:

In problem solving a listing of problems by a group. It may be done via brainstorming, the slip method, buzz groups, or general (total group) discussion.

243. PROCESS ANALYSIS:

This involves taking any content-focused activity such as lecture, discussion, business game or staff meeting and allocating time to consider how problems are being solved and roles allocated. The purpose is to enable participants to focus on the manner in which the group members approach and handle a task, rather than discussing only the task itself.

244. PROFESSIONAL DEVELOPMENT:

Professional development is the process by which individuals increase their understanding and knowledge and/or improve their skills and abilities, to perform better in their current position or to prepare themselves for a position to which they can realistically aspire in the near future.

245. PROFILE:

A procedure to show at a glance the significant data presented on a rating scale. It also permits comparisons between different time frames, individuals, groups, etc. It is usually a graphic representation of the results on several tests for either an individual or a group.

246. PROGRAMMED INSTRUCTION / LEARNING:

A learning process objectified and split up into steps; the individual is expected to become personally active by making an outward response. The steps either are very short, containing little information and the response expected at any particular place is easy, or the individual receives some comment on his response.

It is a self-teaching approach which has been used in the learning of facts, techniques, principles and ideas. The approach is based on B.F. Skinner's behaviourist theories. It has tended to be used in the acquisition of knowledge, i.e. cognitive learning.

247. PROGRAMMED SIMULATION:

As the name suggest, it is a combination of programmed learning and simulation. It is devised for initial individual work which is then followed by group discussion. This form of simulation frequently focuses on decision making.

248. PROJECTIVE TECHNIQUE:

On the basis of pictures provided by the trainer, the participant projects himself/ herself and his/her feelings into the stimulus. It is a means of "dredging up" or projecting feelings or attitudes that may be difficult to bring forth via more conventional methods.

249. PROPS:

Physical objects used in the training situation to augment participants' insight into or empathy with the program's content; for example, a participant may ride in a wheel chair to appreciate the problems of a handicapped person.

250. PULES TAKING:

Assessment of participant feelings about a given session or a full training day. It is useful for making adjustments in the training program as may be warranted or practicable.

251. PUZZLES:

A fun type form of experiential learning that is designed to stimulate participant curiosity, creativity, and a problem-solving orientation. In some cases puzzles are used "Just for fun".

252. QUALITY CIRCLE:

An employee group consisting of six to eight volunteers who identify and resolve a problem and recommend a solution to management. Problems may relate to quality, waste, cost, bottlenecks, safety, etc.

253. QUESTION SHEET:

By giving participants a list of questions as opposed to presenting them orally, the trainer can ensure their comprehension to a significant degree. The sheet also simplifies the question process to the participants and can serve as a reference tool.

254. RATING SCALE:

An instrument assuming many formats designed to permit the participant to express degree or strength of feeling about an issue, behaviour, attitude or value.

256. RECORDER:

One who records and thereby provides a summary of small group ideas, conclusions and recommendations to the total group. The recorder may be an active participant as well as a reporter for the small group.

256. REFLECTION:

A process following introspection wherein we make meaning out of the material we have developed/ discovered through introspection.

257. REINFORCEMENT:

Praise or encouragement of the participant's performance so as to augment his/her interest motivation.

In the training context the term is also used to indicate provision of added learning tasks, material or data so as to aid the comprehension and / or "glueing-in" of the training.

258. RELAY QUESTIONS:

They are tools to be used when the trainer does not want to answer a question that is asked by participants. It is simply passing on the question forcing the group to think and use its own resources.

259. RESOURCE PERSON:

A knowledgeable person who provides content for the training effort.

260. RESPONSIBILITY / ACCOUNTABILITY CHART:

A control sheet or chart to pin-point who is responsible for what and when; useful in team building and in implementing an agreed-upon decision or action plan.

261. ROLE REVERSAL:

A role playing technique wherein one role player "reverses" and assumes the role of another. The purpose is to acquire empathy and insight concerning the feelings, attitudes and values of the other person.

262. ROLE-NEGOTIATION:

A technique used in team-building programs to clarify and improve work and or interpersonal relations between two team members. Each party in the negotiation tries to learn the more of and less of what other expects and what is expected to remain the same.

263. ROLE-PLAYING:

A training technique in which participants act out and thus experience real-life roles and situations. In order to make simulated experience real, trainees take on some of the feelings and attitudes associated with the role. The technique is concerned essentially with problem-solving.

264. ROTATIONAL PROBLEM-SOLVING TECHNIQUE:

Several problem solvers visit the expert advisors, gather ideas. Each problem solver consolidates the ideas he/she has garnered and reports back to the total group on them.

265. SELF HELP GROUP:

The key characteristic of a self help group is mutual learning from members. While leaders, trainers or facilitators may structure initial learning environment, the actual learning occurs primarily between group members themselves.

266. SEMANTIC DIFFERENTIAL:

A bipolar adjective scale used for measuring attitudes toward a given object or stimulus. Scales are labelled with an adjective and its opposite at each end with seven points in between as shown below:

Interesting _____:_____:_____:_____:_____:_____:_____: Boring

267. SEMINAR:

A training effort dependent primarily on the expertise of knowledgeable resource persons. Participants generally have the opportunity to exchange views with the experts. The participant group is typically limited in size for discussion purposes.

268. SENSITIVITY (T-GROUP) TRAINING:

Sensitivity Training is difficult to define because it has become a generic term embracing a wide variety of techniques. The strategy used by the small group trainer has three main goals:

- (a) to increase the ability of members to appreciate how others react to their own behaviour;
- (b) to increase the ability to gauge the state of relationships between others; and
- (c) to increase the ability to carry out skillfully the behaviour required by the situation.

The method used by the facilitator consist mainly of helping to create an structured, non-directive group context wherein the participants can learn from their own experiences of behaving with each other.

269. SENTENCE - COMPLETION INSTRUMENT:

A tool for individual and / or group analysis. It involves using open-ended statements completed by the participants to disclose feelings, attitudes, values, perceptions and behaviour.

270. SEVEN S (7-S) ANALYSIS:

A structured format for problem-solving (determine causes) using these seven factors: structure, strategy, systems, super-ordinate goals, skills, style and staff.

271. SIMULATION:

Here the approach is to reproduce the real world in a controlled fashion. The participants are asked to play different roles and face problems typical to the situation, introduced before them to solve. The emphasis in a simulation is the application of the subject content learned earlier through reading and studying in a structured fashion.

272. SIMULATIONS:

Simulations are exercises which provide the participant with behavioral stimuli representing important aspects of job behaviour. These are so called as the trainer tries to make the participants' experience as far as possible similar to what is obtained on the job.

273. SKIT:

A short, rehearsed dramatic presentation.

274. SLIDES:

Pictures, diagrams or written material put on transparent film frames mostly through the photographic process, but sometimes can be handwritten as well. Slides are an ubiquitous, easy to use medium that makes things memorable through colour and variety. They are effective in simplifying material with graphs and charts and in focussing attention on key data in an organised sequence. Can take us where we cannot go and provide considerable variety.

275. SLIP-METHOD:

A problem-solving tool wherein participants list, individually on 3" to 5" slips, ideas that relate to problem identification, causes for problems or solutions to problems.

276. SMALL GROUP METHODS:

A term used to describe the use of small group in identifying and solving problems. These are also known as group-in-action methods.

277. SOCIO-GRAM:

A diagram which plots interpersonal relations or communication in a group, Example. who talks to whom, how frequently one contributed, how frequently one receives.

278. SOCIO-TECHNICAL SYSTEMS:

The organisational concept emphasizing that both human and non-human factors - including technology, structure and process - interact determine individual and organisational functioning.

279. SOLILOQUY:

A form of role-play in which the single role-player talks aloud about his / her problem, role attitudes, values and relationships.

280. SPEECH-FORUM:

The Speech-forum is a learning method which consists of an organised speech given by a qualified person and a period of open discussion immediately following. The speech-forum provides for minimal two-way communications. In addition to the speaker, there is usually a chairperson to act as moderator during the discussion.

281. SPEECH-LECTURE:

A speech or lecture is a carefully prepared oral presentation of a subject by a qualified individual. It is generally characterised by formality. It is an easy type of program to organise. However, it provides no opportunity for audience participation and hence it provides for communication in one direction only.

282. SPOKESPERSON:

A person who presents the ideas of his/her team or small group to the group at large. The spokesperson may be appointed by the small group, a procedure preferable to appointment by the trainer or by self-appointment.

283. SPONTANEOUS ROLE-PLAYING:

Uses problems or situations that the participants themselves provide; also known as "live" or "hot" role-playing.

284. STOP-FILM TECHNIQUE:

A procedure entailing the stopping of a film/video at any one or more points; the group then discusses what took place or possibly predicts the next action or final outcome.

285. STRUCTURE:

Term used to indicate boundaries, guidelines or limits provided by the trainer. For Example. A lecture is structured; A T-group is basically unstructured.

286. STRUCTURED ANALYSIS:

Entails the use of a structure or set of guidelines to aid in analyzing (determining causes of) a problem.

287. STRUCTURED ROLE-PLAY:

A role play that is well planned, typically including the use of written role-play instruction sheets, observers, possibly pre- and post role-play guide sheets, etc. The idea is to keep things "on track" and reduce participants anxieties.

288. SYMPOSIUM-FORUM:

The symposium-forum is a symposium followed immediately by an audience-participation period of free and open discussion. A moderator acts as a go between for the speakers and the audience. He or she is skilled in handling an audience and stimulating group participation. Like the panel-forum, the symposium-forum provides for a limited degree of two-way communication.

289. SYMPOSIUM:

A Symposium is a speech or lecture in which an audience listens to formal presentations given from a platform. A chairman usually opens the meeting with a few stage-setting remarks and then calls upon other platform members from each of their contributions. There may be two or more speakers each of whom is expected to deliver a formal or prepared talk on a subject. The objective of this form of event is to present many points of view on a particular subject and to help exploit all the possible aspects of a topic in presence of an audience. Since audience participation is minimal, large groups may be accommodated.

290. SYNDICATE GROUP METHOD:

The Syndicate Group Method refers to a form of learning where the class is divided into groups of about six members who work on the same or related problems with intermittent trainer contact and who write a joint report for the critical appraisal of the whole class. The approach involves a combination of lectures and group projects. Each Syndicate selects a chairman who conducts the discussions and leads his group in its work of preparing a report on an assigned task, topic or case study.

291. T-COLUMN:

A two-column device placed on flip-chart/board by the trainer to help participants better see the comparisons and contrast of issues or problems.

292. TASK ANALYSIS:

Systematic analysis of the demands being made upon a person in performing a particular task, with a view to designing appropriate training for new people learning that task.

293. TEAM TEACHING:

Team Teaching is concerned with interdisciplinary, integrative presentations, for example, lecture discussion, seminars, or case study sessions. It is a method of teaching by two or more tutors or different disciplines in combination.

294. TEAM-BUILDING:

A training effort designed to augment a work group's effectiveness. The "agenda" may relate to the work (goals, procedures, etc.) group processes and / or interpersonal relationships.

295. TECHNIQUE:

The body of specialized procedures and methods used in any specific field, especially in the area of applied science.

296. TELE-CINE:

A system of transforming film to video tape.

297. TERMINAL BEHAVIOUR:

The qualities and abilities a participants can or should be able to demonstrate in his behaviour or performance at the end of a course. The complementary concept is Entry behaviour. A clear picture of the Entry and the Terminal behaviors helps the training designer to systematically plan such interventions that may help the participants to acquire the terminal behaviour.

298. TEXT:

Text is a term which has been used in a general way to refer to the use of written materials which the participants study as part of their learning task. The word refers to some pre-selected material which has either been chosen by the tutor or specifically prepared by him.

299. THINK-SHEET:

A worksheet assignment to introduce a topic, session or course. It encourages the participant to reflect on the pertinent subject matter.

300. TOTAL GROUP ROLE-PLAYING:

A role play in which everyone has a role at the same time; it thus becomes a simulation such as role-playing a civil defense disaster.

301. TRAINER-CENTERED LEARNING:

A training situation in which the trainer assumes responsibility for the learning process.

302. TRAINER:

Term used to describe a conductor of a course or programme or the person who handles one or more sessions in a training programme.

303. TRAINING AUDIT:

The identification of training need within an organisation.

304. TRAINING CENTER:

Unit within an organisation staffed with personnel to do the training function.

305. TRAINING CLIMATE:

A prevailing set of values, attitudes, and opinions in the training situation that may affect training outcomes in a positive or negative way.

306. TRAINING CYCLE:

The total process in training commencing with the identification of the need for training interventions to solve some performance problems to the evaluation of the effectiveness of the training.

307. TRAINING MANUAL:

A guide detailing the objectives and standards to be attained and the methods to be used in training for particular job or task.

308. TRAINING PACKAGE:

A package of integrated teaching / learning materials (perhaps multi-media) for use in training for a particular job.

309. TRAINING:

Systematic intervention designed and carried out to enhance one's effective to perform the roles required of him as a job incumbent.

310. TRAID:

A group of three participants functioning as a team or small group.

311. TRUST-WALK:

Also known as "blind walk", this exercise is designed to loosen up participants and develop trust among them. It may be used to heighten sensory awareness.

312. U-MATIC:

3/4 inch video tape cassette system developed by Sony in two forms-low band and high band.

313. UPSIDE-DOWN PROBLEM-SOLVING:

Unconventional solutions to a problem may be obtained by abandoning "common sense" and thinking in opposite terms.

314. VIDEO CASSETTE RECORDER (VCR)/VIDEO TAPE RECORDER (VTR):

An electro-mechanical device capable of recording and or playing back a video tape.

315. VIDEO CONFRONTATION:

A general process which allows the trainee to observe his or her own behaviour on a television screen, usually very shortly after it has been performed. The medium has been particularly useful in the training of managers in public speaking, group dynamics, interviewing and negotiating, and of trainers in using different training methods.

316. VIDEO DISK:

Used widely in interactive video systems for the astonishingly high storage capacity and the speed of access to different tracks, received by a laser.

317. VIEWING LISTENING TEAMS:

By giving small groups an assignment in advance of seeing a film, the trainer secures their commitment to "look" with seriousness and purpose. If only lecture is involved, the teams are called listening teams.

318. VIGNETTE:

A short segment of a film / video used to present a problem or situation for discussion. Quite often the vignette may have considerable impact particularly if it is well selected, i.e., directed toward a particular problem situation.

319. VISUALIZATION:

Working from actual events, relationships either past or present, the participant recalls and interprets it. Example: an incident involving an earlier supervisor who influenced one's career for the better. Feelings about the event and persons involved are expressed freely.

320. WARM-UP ACTIVITY:

A training procedure such as an ice-breaker or an opener designed to start things off and set the proper climate.

321. WORKSHOP:

A workshop is a group of persons with a common interest or problems, often professional or vocational, who meet for an extended period of time to improve their individual proficiency, ability, or understanding by means of study, research, and discussion. It is a "hands-on" highly participative training effort wherein participants learn by doing. Typically the group is small enough to ensure adequate rapport and intimacy.

322. WORST-SCENARIO:

A form of fantasy used to explore the worst that would happen should a given event occur and feelings related to the event. Its purpose is to get out of one's system all the fear and anxieties surrounding a possible happening.

323. WRONG WAY-RIGHT WAY:

A form of case study utilizing two cases to illustrate a preferred action, behavior or decision.

324. YES-NO INSTRUMENT:

A relatively simple instrument that asks the participants to agree or disagree with the statements or questions included therein. A scoring device generally accompanies the quiz.

A S E L E C T
B I B L I O G R A P H Y O N T R A I N I N G

1. Administrative Staff College of India. ASCI Case Collection: First Series. Bombay: Asia Publishing House, 1963.
2. Administrative Staff College of India. ASCI Case Collection: Second Series. Bombay: Asia Publishing House, 1967.
3. Andrews, K.R. (Ed). The Case Method of Teaching Human Relations and Administration. Cambridge, Massachusetts: Harvard University Press, 1960.
4. Arora, R.K. and Kukar, J.C. (eds.) Training and Administrative Development. Jaipur: HCM Institute of Public Administration, 1979.
5. Ashton, D., Q., Easternby-Smith, M. Management Development in Organisation. London: Macmillan, 1979.
6. ASTD. Models and Concepts for Training and Development/ Human Resources Development Programmes. Washington, D.C.: American Society for Training and Development, 1981.
7. Baird, L. and Schneier, C.E. and Laird, D. The Training and Development Sourcebook. Amherst, Massachusetts: Human Resources Development Press, 1982.
8. Bard, R., Bell, C.R., Stephen, L., & Webster, L. The Trainer's Professional Development Handbook. San Fransisco, California: Jossey-Bass, 1987.
9. Bass, B.M. and Vaughan, J.A. Training in Industry: The Management of Learning. Belmont, California: Wadsworth Publishing Co., 1966.
10. Bennett, R. Improving Trainer Effectiveness. Aldershot, Hants, England, Gower Publishing Co. 1991.
11. Berlinger, R. and Kramlinger, T. Management Training. Homewood, Illinois: Richard D. Irwin, 1974.
12. Berrien, F.K. Concepts and Cases in Human Relations New York: Harvard University Press, 1951.
13. Birnbrauer, H. Training for Trainers. Bensalem, Pennsylvania: Institute for Business and Industry, Inc., 1981.
14. Bligh, D.A. What is the Use of Lectures ? Harmondsworth, Middlesex, England: Penguin, 1972.
15. Bloom, Benjamin S et.al. A Taxonomy of Educational Objectives Handbook I : The Cognitive Domaign. New York: Longman, 1956.

16. Boyd, B.B. Supervisory Training: Approaches and Methods. Washington, D.C.: American Society for Training and Development 1982.
17. Boydell, T. Experiential Learning. Manchester: Manchester Monographs, Manchester University, 1976.
18. Boydell, T. and Pedler, M. Management Self Development. Aldershot, Hants, England: Gower Publishing Co., 1981.
19. Bramley, P. Evaluation of Training : A Practical Guide, London; British Association for Commercial and Industrial Education, 1991.
20. Bridges, F.J. and Chapman, J.E. Critical Incidents in Organisational Behaviour and Administration. Englewood Cliffs, New Jersey: Prentice Hall, 1977.
21. Broadwell, M.M. The Supervisor as an Instructor: A Guide for Classroom Training. Readings, Massachusetts: Addison-Wesley, 1984.
22. Bromeley, D.B. The Case Method in Psychology and Related Disciplines. New York: Wiley, 1986.
23. Brown G.I. Human Teaching for Human Learning, New York: Viking Press, 1971
24. Burgoyne, J.G. and Stuart, R. Management Development: Context and Strategies. Aldershot, Hants, England: Gower Publishing Co., 1978.
25. Cabut, H. Human Relations: Cases and Concepts in Concrete Social Science. Cambridge, Massachusetts, Harvard University Press, 1953.
26. Camp, R.R., Blanchard, P.N., & Huszeto, G.E. Toward a More Organizationally Effective Training Strategy and Practice. Englewood Cliffs, New Jersey: Reston Books (Prentice-Hall Division), 1986.
27. Carnevale, A.P. and Goldstein, H. Employee Training : Its Changing Role and an Analysis of New Data. Washington, D.C.: American Society for Training and Development, 1983.
28. Carroll, S.J. and Schuller, R.S. (eds.) Human Resource Management in the 1980's: Supplement to the APSA Handbook of Personnel and Industrial Relations. Washington. D.C. : The Bureau of National Affairs Inc., 1983.
29. Chalofsky, N. and Lincoln, C.I. Up the HRD Ladder: A Guide for Professional Growth. Readings, Massachusetts: Addison-Wesley, 1983.

30. Chalofsky, N.E. Effective Human Resource Development. San Fransisco, California: Jossey-Bass, 1983.
31. Chesler A. Fax. Role Playing Methods in the Class Room. Illinois: Science Research Associates, 1966.
32. Chowdhury K. and Kakar. S (Eds) Understanding Organisational Behavior. New Delhi: Tata McGraw Hill, 1971.
33. Clark, J.V. Education for the use of Behavioural Science. Los Angles. California: Institute of Industrial Relations, University of California at Los Angeles, 1962.
34. Clegg, C.W. Kemp, N.J. & Lesse, K (Eds) Case Studies in Organisation Development Behavior. London. Hayd & Row, 1985.
35. Cooper, C.L. (ed.) Developing Managers for the 1980's London: McMillan, 1980.
36. Cox, C. and Beck, J. (eds.) Advances in Management Education. London: Wiley, 1980.
37. Craig, R. L. (Ed.) Training and Development Handbook. (3rd. ed.) New York: McGraw-Hill, 1987.
38. Cross, K.P. Accent on Learning. San Fransisco, California: Jossey-Bass,
39. Cross, K.P. Adults as Learners. San Fransisco, California: Jossey-Bass,
40. Cruickshank, H.M & Davis, K. Cases in Management. Homewood, Illinois: Richard D. Irwin, 1962.
41. Culliton, J.W. Handbook on Case Writing. Manila: Asian Institute of Management, 1973.
42. Davies, I.K. The Management of Learning. New York: McGraw-Hill, 1971
43. Davies, I.K., Hudson, E.H., Doddy, B. and Hartley, J. The Organisation of Training. New York: McGraw-Hill, 1973
44. DePhillips, F.A., Berlinger, W.M. and Cribbin, J.J. Management of Training Programmes. Homewood, Illinois: Richard D. Irwin, Inc., 1960.
45. Desatnick, R. L. A Concise Guide to Management Development. New York: AMACOM, 1970.
46. Dickenson, G. Teaching Adults: A Handbook for Instructors. Toronto: New Press, 1973.

47. Donaldson, L. and Scannel, E.F. Human Resources Development: The Trainer's Guide. Readings, Massachusetts: Addison-Wesley, 1978.
48. Drakes, J., Margerison, C. and Hunter, N. Management and Organisation Development, Bibliography. Bradford, England: MCB Publications, 1980.
49. Dubin R., and Teveggla, T.C. The Teaching-Learning Paradox. Eugene, Oregon, University of Oregon Press, 1968.
50. Dubrin, A.J. Case Book of Organisational Behavior. New York: Pergamon Press, 1977.
51. Easton, G. Learning from Case Studies. Englewood Cliffs, New Jersey: Prentice-Hall, 1982.
52. Eble K.E. (ed.) Improving Teaching Styles. San Fransisco, California: Jossey-Bass.
53. Eittington, J.E. The Winning Trainer. Houston, Texas: Gulf Publishing Co., 1984.
54. Elgood, C. Hand Book of Management Games, Aldershot, Hants, England Gower Publishing Co., 1990
55. Elias, J.L., and Merriam, S. Philosophical Foundations of Adult Education. New York: Robert E. Krieger, Publishing Co., 1980.
56. Emsel, H.M. Handbook of Creative Learning Exercises. Houston, Texas: Gulf Publishing Co., 1973.
57. Entwistle, N. Styles of Learning and Teaching. Chichester: John Wiley, 1981.
58. Erickson, S. Motivation to Learning Ann Arbor, Michigan: University of Michingan Press, 1974.
59. Farmer, R.N., Richman, B.M., & Ryan, W.G. Incidents in Applying Management Theory. Belmont, California: Wadsworth Publishing Co., 1966.
60. Fetzer, R.C. Training the Trainer. Ohio: Fetzer Communications, 1983.
61. Foy, N. Management Education. Bradford, England: MCB Publications, 1980.
62. Fraser, C.E. The Case Method of Instruction. New York: Marm Hice, 1953.
63. Freedman, R.D., Cooper, C.L. and Stumpf, S.A. Management Education: Issues in Theory, Research and Practice. New York: john Wiley, 1982.

64. Friedman, P.G. and Yarbrough, E.A. Training Strategy from Start to Finish. Englewood Cliffs, New Jersey: Reston Books (Prentice-Hall Division),
65. Gagne, R.M. The Conditions of Learning. New York: Holt, Rinehart & Winston, 1977.
66. Gane, C. Managing the Training Function. London: George Allen and Unwin, 1972.
67. Gardner, J.E. Choosing Effective Development Programmes. Westport, Connecticut: Quorum Books (A division of Greenwood Press), 1987
68. Gibb, J.R. Learning Theory in adult Education. In M.S. Knowles (ed.) Handbook of Adult Education in the United States. Chicago: Illinois: Adult Education Association of the U.S.A., 1960.
69. Glover, J.D. et.al. & However, R.M. The Administrator: Cases on Human Relations in Business. (5th ed.) Homewood, Illinois: Richard D. Irwin, 1973.
70. Goldstein, I.L. Training in Organisations: Needs Assessment, Development and Evaluation. (2nd. ed.) Monterey, California: Brooks/Cole, 1986.
71. Goldstein, I.L., & others. Training and Development in Organisations, San Fransisco, California: Jossey-Bass, 1989.
72. Gray, J., & Constable, J. Case Method in Management Training. In B. Taylor & G. Lippitt (Eds.) Management Development & Training Handbook (2nd ed.) London: McGraw-Hill, 1983.
73. Gropper, G.L. and Short, J.G. Handbook for Training and Development. Pittsburgh: American Institutes for Research, 1969.
74. Gupta, S.P. Development of Managerial Skills in India. New Delhi: National Publishing House, 1979.
75. Hacon, R.J. Management Training: Aims and Methods. London: English Universities Press, 1961.
76. Hague, H. Executive Self Development: Real Learnings in Real Situations. London: McMillan, 1974.
77. Hague, H. Helping Managers to Help Themselves. Oxford: Context, 1979.
78. Harlow, D.N. & Hanke, J.J. Behaviour in Orgnaisations: Text, Readings and Cases. Boston: Little Brown, 1975.

79. Hatcher, J. Vaghefi, M.R. & Arthur, W.J. The Case Method Its Philosophy and Educational Concept. *Carnfield: The case clearing house, 1973.
80. Havelock, R.G. and Havelock, M.C. Training for Change Agents. Ann Arbor, Michigan: University of Michigan Press, 1973.
81. Havighurst, R.J. Developmental Tasks and Education. New York: David Mckay & Co. (4th ed.) 1979.
82. Herbst, T.T. and Yost, E.B. Management Education and Development. Westport, Connecticut: Greenwood, 1978.
83. Hill W.F. Principles of Learning: A Handbook of Applications. Palo Alto, California: Mayfield, 1981.
84. Hill, J. The Educational Sciences. Bloomsfield Hills, Michigan: Oakland Community College Press, 1971.
85. Hodge, B.J. Johnson, H.J & Read, R.L. Organisational Behavior: Cases and Situations. New York: Intext, 1974
86. House R.J. Management Development: Design, Evaluation and Implementation. Ann Arbor, Michigan: University of Michigan Press, 1967.
87. Howe, M.J.A. (Ed.) Adult Learning: Psychological Research and Applications. London: John Wiley, 1977.
88. Huczynski, A. Encyclopedia of Management Development Methods. Aldershot, Hants, England: Gower Publishing Co., 1983.
89. Humble, J. (ed.) Improving the Performance of the Experienced Manager. London: McGraw-Hill, 1973.
90. ILO., An Introductory Course in Teaching and Training Methods. New Delhi: Sterling Publishing Co., 1983.
91. Ivens, M., & Broadway, F (Eds.). Case Studies in Human Relations, Productivity, Organisation. London: Business Publications Ltd. 1966.
92. Jauch, L.K. Coltrin, S.A. Bedian, A.G. & Glueck, W.F. The Managerial Experience: Cases, Exercises, and Readings. Chicago: The Dryden Press, 1983.
93. Jones, J.E. and Woodcock, M. Manual of Management Development. Aldershot, Hants, England: Gower Publishing Co., 1985.
94. Jones, J.E. and Pfeiffer, J.W. Role Playing. In J.E. Jones & J.W. Pfiffer (Eds.) The 1979 Annual Handbook for Group Facilitators. La Jolla, California: University Associates, 1979.

95. Joyce, B. and Weil, M. (eds.) Perspectives for Reform in Teacher Education. Englewood Cliffs, New Jersey: Reston Books (Prentice-Hall Division), 1972.
96. Joyce, B. and Weil, M. Models of Teaching. Englewood Cliffs, New Jersey: Reston Books (Prentice-Hall Division), 1980 (2902 ed.)
97. Juch, B. Personnel Development: Theory and Practice in Management Training. New York: John Wiley, 1983.
98. Keeton, M.T. & Aserutes. Experiential Learning: Rationale, Characteristics and Assessment. San Fransisco, California: Jossey-Bass, 1976.
99. Kelly, E.C. Education for What is Real. New York: Harvard Press, 1967.
100. Kenney, J., Donnelly, E. & Reid, M. Manpower Training and Development. (2nd. ed.) London: Institute of Personnel Management, 1979.
101. Kenney J. & Reid, M. Training Interventions. London, Institute of Personal Management, 1989.
102. Kerrigan, J.E. & Luke, J.S. Management Training Strategy for Developing countries. Boulder, Colorado: Lynne Reiner Publishing Co., 1987.
103. Kidd, J.R. How Adults Learn. New York Association Press, 1973.
104. King, D. Training Within the Organisation. London: Tavistock Publications, 1969.
105. Kirkpatrick, D.L. A Practical Guide for Supervisory Training and Development. Readings, Massachussettes: Addison-Wesley, 1978.
106. Klein, A.F. Role Playing in Leadership Training and Group Problem Solving. New York: Association Press, 1956
107. Knowles, M.S. The Adult Learner: A neglected Species. Houston Texas: Gulf Publishing Co. (3rd ed.) 1984.
108. Knowles, M.S. The Modern Practice of Adult Education. Chicago: Follet Publishing Co. 1980 (2nd ed.)
109. Knowles, M.S. The Self-Directed Learning: A Guide for Learners and Teachers. new York: Association Press, 1975.
110. Knox, A.B. Adult Development and Learning. San Fransisco, California: Jossey-Bass, 1977.

111. Knudson, K.R. Organisational Behavior: Cases for Developing Nations. Readings Massachusetts: Addison-Wesley, 1967.
112. Kolb, D.A. Experiential Learning: Experience As the Source of Learning and Development. Englewood cliffs, New Jersey: Prentice-Hall, 1984.
113. Kolb, D.D., Rubin, I.M. and McIntyre, J.M. Organisational Psychology; Readings on Human Behaviour in Organisations. Englewood Cliffs, New Jersey : Prentice-Hall, 1983.
114. Kolb, D.M. Rubin, I.M. and McIntyre, J.M. Organisational Psychology; An Experiential Approach to Organisational Behaviour. Englewood Cliffs, New Jersey : Prentice-Hall, 1983.
115. Kondra, M. Management Training: Practices and Attitudes. London : BIM, 1975.
116. Krathohl, David R. et.al. A Taxonomy of Educational Objectives. Handbook II : Affective Domain. New York: Longman, 1964.
117. Kubr.M. Principles For Selection of Teaching and Training Methods. In ILO. : An Introductory Course in Teaching and Training for management Development. Geneva: International Labour Office, 1972. (Also published in India by Sterling Publishing Co., New Delhi, 1983).
118. Kubr. M. (ed) Managing a Management Development Organisation., Geneva : International Labour Organisation, 1982.
119. Laird, D. Approaches to Training and Development. Readings, Massachusetts : Addison-Wesley, 1985.
120. Latif, T.A.A. Training for management. New Delhi : Sterling Publishers, 1977.
121. Lynton, R.P. and Pareek, U. Training for Development. west Hartford, Connecticut, Kumarian Press. 1989.
122. Mouton, J. S. and Blake, R.R. Synergosy : A New Strategy for Education, Training and Development. San Francisco, California : Jossey-Bass, 1984.
123. Mumford, A. Making Experience Pay. London : McGraw-Hill, 1980.
124. Mumford, A. The Manager and Training London : Pitman, 1971.
125. Mumford, A. (ed.) Handbook of management Development. (2nd. ed.). Brookfield, VT: Gower Press, 1986.

126. Murray, J.V. & Von Der Exbse, T.J. Organisational Behaviour : Critical Incidents and Analysis. Columbus, Ohio : Merrill, 1973.
127. Murthy, V.S. Case Problems in Business Management. Bombay : Asia, 1962.
128. Murthy, V.S. Management Practice L A case Approach in Indian Context. Bombay : Vakils, Peffar & Simons, 1979.
129. Nadler, I. Designing Training Programmes : The Critical Events Models. Readings, Massachusetts : Addison-Wesley, 1982.
130. Nadler, L. and Wiggs, G.D. Managing Human Resources Developmental : A Practical Guide. San Francisco, California : Jossey-Bass, 1986.
131. Nadler, L. Corporate Human Resources Development a Managerial Tool. New York : Van Nostrand and Reinhold Co., 1980.
132. Nadler, L. (ed.), The Handbook of Human Resources Development. New York: John Wiley, 1984.
133. Nadler, L. and Nadler, Z. Developing Human Resources . (3rd.ed.), San Francisco, California : Jossey-Bass, 1989.
134. Nixon, B. New Approaches to Management Development. Aldershot, Hants, England: Gower Publishing Co., 1980.
135. Nylen, D. Mitchell, R.J. and Stout, A. A handbook of Staff Development and Human Relations Training : Material Developed for Use in Africa. Washington, D.C. : NTL Institute of Applied Behavioral Science, 1988.
136. O'Donnel, C. Cases in General management. Homewood, Illinois : Richard D. Irwin. 1965.
137. Odiorne, G.S. Training by Objectives: An Economic Approach to Management Training. New York: McMillan, 1970.
138. Odiorne, G.S. and Rummlar, G.A. Training and Development: A Guide for Professional. Chicago, Commerce Clearing House, 1986.
139. Otto, C.P. and Glaser, R.O. The management of Training : A Handbook for Training Development Personnel. Readings, Massachusetts: Addison-Wesley, 1970.
140. Pareek, U. and Rao, T.V. Designing and Managing Human Resource Systems. New Delhi: Oxford and IBH, 1981.
141. Pareek, U. and Rao, T.V. & Pestenjee, D.M. Behavioral Processon Organisations. New Delhi. Oxford & IBH 1981.

142. Park, C. Management Training. New York : Walker Publishers, 1977.
143. Patten, T.H. Manpower Planning and Development of Human Resources. New York : John Wiley, 1971.
144. Patterson, C. Humanistic Education. Englewood Cliffs, New Jersey : Prentice-hall, 1973.
145. Pedler, M. and Boydell, T. Self Development Bibliography. Bradford: MCB Publications, 1980.
146. Pedler, M. Burgoyne, J. and Boydell, T. A Manager's Guide to Self Development. London: McGraw-Hill, 1978.
147. Pepper, A.D. Managing the Training and Development Function. Aldershot, Hants, England: Gower Publishing Co., 1984.
148. Peterson, R.O. (ed.). Studies in Training and Development. (Research Papers from the 1978 ASTD National Conference), Washington, D.C. : American Society for Training and Development, 1979.
149. Pfeiffer, J.W. and Jones, J.E. Reference Guide to Handbooks and Annuals. San Diego, California: University Associates, 1981.
150. Pfeiffer, J. W. and Jones, J.E. The Annual Handbooks for Group Facilitators. San Diego, California: University Associates, 1972.
151. Pfeiffer, J.W. (ed.) A Handbook of Structured Experiences for Human Relations Training: Vols. I to X. San Diego, California: University Associates, 1977.
152. Pigors, P & Pigors, P. Case Method in Human Relations. New York : McGraw-Hill, 1961.
153. Pigors, P. Case Method In R.L. Craig & L.R. Bittel (Eds) Training & Development Handbook. New York: McGraw-Hill, 1967.
154. Pigors, P. Case Method: In R.L. Craig (Eds) Training & Development Handbook. New York: McGraw-Hill, 1976.
155. Plants, E.G. & Freestone, J.T. Developing Management Ability. New York: The Ronald Press Co. 1954.
156. Prately, K.A. Learning and Training Styles: A Review of Research and Practitioner View. London: manpower Services Commission, Training Services Division, 1978.
157. Proctor, J.H. and Thornton, W. Training : A Handbook for Line Management. New York: AMACOM, 1961.

158. Rae, L. The Skills of Training : A Guide for Managers and Practitioners. Aldershot, Hants, England: Gower Publishing Co., 1983.
159. Rae, L. The Skills of Human Relations Training. Aldershot, Hants, England: Gower Publishing Co., 1985.
160. Rae, L. How to Measure Training Effectiveness, Aldershot, Hants, England: Gower Publishing Co. 1991.
161. Raymond, T.C. Problems in Business Administration: Analysis by the case method. New York : McGraw-Hill, 1964.
162. Reddy, W.B. and Henderson, C.C.(eds.), Training Theory and Practice. San Diego, California: University Associates, 1987.
163. Reeves, E.T. Management Development for the Line Manager. New York : AMACOM, 1969.
164. Revans, R.W. Action Learning. London: Bland and Briggs, 1980.
165. Reynolds, J.I. Case Method in Management Development. (Management Development Series No. 17) Geneva: ILO, 1980. Also published in India New Delhi: Oxford & IBH 1980.
166. Richter, L. Training Needs Assessment and Monitoring, Geneva, ILO, 1989.
167. Ritchie, J.B. & Thompson, P. Organisations and People: Readings, Cases and Exercises in Organisational Behaviour. St. Paul, Minnesota: West Publishing Co. 1980.
168. Robinson, K.R. A Handbook of Training management. (2nd. Ed.) London: Kogan Page, 1985.
169. Rogers, C.R. Freedom to Learn : A View of What Education Might Become. Columbus, Ohio: Charles E. Merrill, 1969.
170. Romizowsky, A.J. A Systems Approach to Education and Training. London: Kogan Page, 1970.
171. Rosow, J.M. and Jager, R. Training : The competitive Edge. San Francisco, California: Jossey-Bass, 1988.
172. Rotheslisurger, F. T. Training for Human Relations. Cambridge, massachusetts, 1964.
173. Rudrabasava Raj, M.N. Executive Development in India. Bombay: Himalaya Publishing House, 1977.

174. Saxena, A.P. (ed.) Training in Government: Objectives and Opportunity. New Delhi: Indian Institute of Public Administration, 1985.
175. Schnelle, K.E. Case Analysis and Business Problem Solving. New York: McGraw-Hill, 1967.
176. Shah, R.M. Cases in Indian Methods. Bombay: Jaico, 1977.
177. Sharma, A.K. Management Development in Public Enterprises. New Delhi: Ajanta Publications, 1979.
178. Shaw, M.E. Role Playing. In R.L. Graig & L.R. Bittel (Eds.) , Training and Development Handbook. New York: McGraw-Hill, 1974.
179. Simmons, D.D. The Case Methods in management. In B. Taylor & G.L. Lippitt (Eds.) Management Development Training Handbook: London : McGraw-Hill, 1975.
180. Smith, R.M. Learning How to Learn. Chicago, Illinois: Follet, 1982.
181. Smith, B.J. & Delahaye, B.L. How to be An Effective Trainer: Skills for Managers and New Trainers, London, John Wiley & sons, 1990.
182. Snelbecker, G.E. Learning Theory, Instructional Theory and Psychoeducational Designs. New York: McGraw-Hill, 1974.
183. Solomon D., & Miller, H.L. Exploration in Teaching Styles. Chicago: Center for the Study of Liberal Education for Adults, 1961.
184. Sprinthall, N.A. Guidance for Human Growth. Van Nostbe, 1971.
185. Stammers, S.R. and Patrick, J. The Psychology of Training. London: Methuen, 1975.
186. Stewart, V and Stewart, A. Managing the Manager's Growth. Aldershot, Hants, England: Gower Publishing Co., 1987.
187. Tarbert, W.R. Learning from Experience: Toward Customs. W.Y. Columbia University Press, 1972.
188. Taylor, B. and Lippitt, G. (eds.) Management Development and Training Handbook (2nd.ed.). New York: McGraw-Hill, 1983.
189. Torrington, D. P. and Sutton, D.F. (eds.) Handbook of Management Development. Aldershot, Hants, England: Gower Publishing Co., 1973.

190. Towers, J.M. Role Playing for Managers. Oxford: Pergamon Press, 1974.
191. Towl, A.R. To Study Administration by Cases. Boston, Massachusetts: Graduate School of Business Administration, Harvard University Press, 1969.
192. Tracey, W.R. Designing Training and Development Systems. New York: AMACOM, 1971.
193. Tracey, W.R. Managing Training and Development Systems. New York: AMACOM, 1974.
194. Tracey, W.R. (ed.) Human Resources and Management Development Handbook. New York: AMACOM, 1983.
195. Vaughan, B.C., Hoy, F. and Buchanan, W.W. Employee Development Programmes: An Organisational Approach. West Point, CT: Quaron Books, 1985.
196. Verduin, J.R., Miller, H.G. & Greer, C.E. Adults Teaching Adults. Austin, Texas: Learning Concepts, 1977.
197. Vig, S.N. & Rao, C.V. Select Bibliography on Management of Training and Development. Productivity, 1980 (Jan-March), 20(4), pp.605-618.
198. Walter, G.A., & Marks, S.E. Experiential Learning and Change: Theory, Design and Practice. New York: John Wiley, 1981.
199. Warren, M.W. Training for Results: A systems Approach to the Development of Human Resources in Industry. Readings, Massachusetts: Addison-Wesley, 1979.
200. Warshauer, S. Inside Training and Development: Creating Effective Programmes. San Diego, California: University Associates, 1988. (2nd. ed.)
201. Watson, C.E. Management Development Through Training. Readings, Massachusetts: Addison-Wesley, 1979.
202. Wegner, R.E.C. & Sayles, L. Cases in Organisational Behaviour. Englewood Cliffs, New Jersey: Prentice-Hall, 1972.
203. Weinstein, G., & Fantini, M. M. Toward Humanistic Education: The Curriculum of Affect. New York: Frederick A. Praeger., 1970.
204. Weley, K.N. and Latham, G.P. Developing Human Resource in Organisations. Glenview, Illinois: Scott Foresman Publishing Co. 1981.

205. White, B.J. Stamm, J.H. & Foster, L.W. Cases in Organisation. Behaviour, Structure, Process. Dallas, Texas: Business Publications Inc. 1976.
206. Willings, D.R. How to Use the Case Study in Training for Decision Making. London Business Publications Ltd. 1968.
207. Woodcock, M and Francis, D. The Unlocked Manager: A Practical Guide to Self Development. Aldershot, Hants, England: Gower Publishing Co., 1982.
208. Yoder, D. and Honeymoon, H.G. (eds.) APSA Handbook of Personnel and Industrial Relations. Washington, D.C.: Bureau of National Affairs, 1979.
209. Yuill, B. and Steinhoff, D. Developing Managers in Earnestness. New York: John Wiley, 1975.
210. Zemke, R., Standke, L. and Jones, P. Designing and Developing Cost-effective Training. Minneapolis: Lakewood Publications. 1982.
211. Zoll, A.A. Dynamic Management Education. Readings, Massachussettes: Addison-Wesley, 1969.

PART 2

MODULE ON TRAINING OF TRAINERS FOR BARD FACULTY MEMBERS

2.1. THE TASK

The 'Assistance to the Development of BARD' (ADB) Project among many of its facets, also aimed at upgrading the capability of BARD faculty members in Research and Training Methodologies. My specific responsibility as the Training and Education Consultant in this respect was decided in the Work Plan to conduct two inhouse programmes on Training Methodology for the faculty members of the academy. Besides upgrading the training capability, as it came out during discussion with the Director General, the course should also aim at developing a module, which could be pursued by BARD in future.

2.2. TRAINING NEED ASSESSMENT

As the targetted clientele group is composed of trainers, already engaged in training for varied duration, it was felt necessary to start the process with the assessment of their expectations from such programmes. In order to develop such idea, a brief survey was made with the help of a questionnaire consisting of following dimensions of the proposed programmes:

- 1) Objectives of the programme
- 2) Contents of the programme
- 3) Methodologies to be adopted in addressing the contents

On the basis of feedback received from the faculty, the following are accounts of preferences in respect of the above mentioned dimensions.

2.2.1. Objectives

- a) To develop orientation about designing and managing training programmes
- b) To develop capabilities of training need assessment and evaluation techniques for training programmes
- c) To improve upon skills in the production and use of various kinds of training methods and materials.

2.2.2. Contents

- a) Concept of training, training methodology and training cycle.
- b) Training Design: training need assessment; determination of training objectives; content planning; training methods and techniques.
- c) Management of training programmes: rapport build up; production and utilisation of training materials; time management.
- d) Use of training methods and techniques: Lecture method-presentation technique; Group Discussion/Syndicate session; Case study; Participatory technique; structured experiences; role play.
- e) Use of audio-visual aids
- f) Evaluation and follow up in training.

2.2.3. Methodology

A host of methodologies for addressing the contents was indicated by the faculty members, the more important of which were as follows:

- a) Lecture-cum-Discussion
- b) Group Discussion
- c) Individual/Group Assignment
- d) Structured Experiences
- e) Use of audio visual aids
- f) Case Study
- g) Participatory method/Brainstorming.

2.3. TRAINING STRATEGY

Incorporation of all the preferences expressed in terms of the above mentioned three dimensions were planned in two phases. The training strategy decided for these two phases are discussed in the following paragraphs in respect of training goals, content planning, training methodological perspective and resource utilisation. Eventhough the PRODOC conceived the training requirements on training methodology, the actual feedback received from the clientele indicated their need to be much broader. Hence, the scope of the training was widened, and the nomenclature was changed to 'Training of Trainers'.

2.3.1. Training Goals :

While the end result of conducting the training programme was conceived to be the upgradation of training capabilities of the BARD faculty members, each of the two phases of 'Training of Trainers' Programme planned to reach the following two goals separately. These goals were set in the light of the expectations of the faculty members.

- 1) The first phase was planned to provide an orientation on designing and managing training programmes and introduce some of the important training methods with particular emphasis on participatory technique.
- 2) The second phase aimed at developing the capabilities in respect of production and use of training methods and techniques.

It may however be mentioned here, that the interregnum between the two phases was utilised for actually developing the skills in training design and production of various types of

training materials. The methods selected and materials thus produced were presented in the second phase and thus formed its major input.

2.3.2. Content Planning :

The preferences expressed in respect of contents by the faculty can be broadly grouped under the following two categories, keeping in view the above mentioned goals:

- a) designing and management of training programmes including training need assessment, content planning, utilisation of training methods (mostly participatory) and evaluation of training; and
- b) production and use of training methods, materials and techniques.

The content planning for the two phases were done in such a manner that they progressively developed from one to the other. Following paragraphs provide accounts of the actual contents planned for the two phases.

a) Contents: Phase I

- 1. Training for Human Resource Development: Concept; Role of training; Training process.
- 2. Designing Training Programmes: Training needs assessment; Deciding on the training goals; Content planning; Selection of training methods; Planning for evaluating training programmes.
- 3. Management of Training programmes: Identification of various tasks in managing a training programme; Time scheduling for each of the activities - the drill; Time and task management.
- 4. Introduction to a Few Training Methods: Lecture method; Group Discussion/Syndicate method; Role play, Case study; Participatory techniques(coverdale); Structured experiences.
- 5. Introduction to Audio Visual Media for Training: Projected and non-projected audio visual media; Factors influencing selection of visual and audio-visual media.

6. Evaluation of Training Programme: How to evaluate effectiveness of training programme; Training objective vs. evaluation objectives; Evolving a format for evaluation; Follow up of evaluation results for improving training effectiveness.

b) Contents: Phase II

The phase II was designed to be based upon application of the topics discussed in the first programme and was made fully participatory.

The major features of the second phase were planned as follows:

- * The entire batch of participants was to be divided into few operational groups. Each of them would be assigned with a task of designing a particular training programme.
- * Based on the content planning, a few topics were to be identified by them for presentation by following various training methods.
- * Training materials were to be produced by themselves under the guidance of the consultant and resource persons during the interregnum a little more than two months.
- * These methods were to be applied in course of specific presentation sessions by group members during the second phase.
- * The resource persons, Directors of the divisions and also fellow participants would provide needed feedback.
- * Besides such sessions on production and utilisation of training methods and materials, advanced inputs on structured experiences as well as participatory techniques were also to be included in the list of contents for the phase II.

2.3.3. Training methods

Both the phases used a combination of methods like lecture-cum-discussion counselling, experiential techniques like brainstorming, problem solving and actual do-it-yourself technique etc. However, the weightage of each of these methods in

two phases varied with more of participatory and do-it-yourself techniques during the second phase.

2.3.4. Resource Utilisation

Faculty: Both the phases involved a mix of faculties from BARD as well as guest speakers of repute in Bangladesh.

Fund : The budget provision of the course was met from the ADB project fund.

2.4. CONSULTATION

The design thus framed with a tentative time schedule for the first phase was first discussed with the heads of various divisions for their comments. Accordingly, the design and the time table for the first phase were modified and finally placed before the Director General. Very useful suggestions emerged out of detailed discussions with him after which the training design was finalised.

2.5. ADMINISTERING THE PROGRAMME

(i) Objectives: Phase - I

The phase I of the programme was actually conducted during June 16-25, 1992. The broad training goal as mentioned earlier was further specified in terms of the following specific objectives:

- i) to provide orientation on training in respect of designing and managing training programmes
- ii) to introduce a few important methods of training and techniques of media utilisation.
- iii) to evolve a format for evaluation of training programmes.

(ii) Objectives : Phase - II

The phase II was conducted during September 16-24, 1992.

The specific objectives of this phase were :

- (i) to develop capabilities in respect of designing training programmes
- (ii) to enable development of a few training methods and techniques
- (iii) to acquire skill of using such methods in classroom situation.

Participants :

A list of nomination of 27 faculty members was received consisting of Joint Directors, Deputy Directors and Assistant Directors, out of which 25 finally attended the programme during the first phase. But during second phase, even though it was intended to involve the same group in reality two of them went abroad for training and third one was deputed for local training. However, three more faculty members who did not attend the first phase, took their place. They took the role of observers, because of their non-involvement during formulation of course designs and training methods during the interregnum.

(i) Organisation of Sessions: Phase - I

There were 24 technical sessions of one hour and fifteen minutes each during the first phase, besides three sessions devoted to inaugural and concluding functions. The thematic distribution of these sessions covering various topics addressed in this phase of the course are presented below and the actual Programme is shown in Appendix I.

Table 2.1 : Distribution of Sessions According to Thematic Coverage : phase - I

Sl. No.	Thematic coverages of various topics	No. of sessions	Percentage of total technical sessions
1.	Conceptual aspect and designing and management of training programmes	8	33.33
2.	Introduction to various training methods	12	50.00
3.	Evaluation of training programme	4	16.67
Total		24	100.00

(ii) Organisations of Sessions : Phase - II

The organisation of sessions during the second phase was planned in a different manner. Sessions of three hours was allotted for presentation of training designs by six groups. Similar time was earmarked for presentation of each of the training methods like lecture and role play. For case study presentation however, the total time allotted was double i.e. six hours for the six groups. For audio-visual aids presentation the time allotted was two hours. Thus in all, sessions covering twenty four hours was allotted during second phase which included, besides inaugural and concluding sessions, time for course evaluations also. The total technical sessions were for 21 hours. (Programme for phase II in Appendix II) The thematic distribution of the sessions (in terms of hours) addressed during the second phase were as follows :

Table 2.2. Distribution of Sessions According to Thematic Coverage : Phase II

Sl. No.	Thematic coverages of various sessions	No. of session hours	Percentage of total technical session hour
1.	Presentation of training designs	3	14.28
2.	Presentation of training methods	14	66.66
3.	Management of training programmes	4	19.05
Total		21	100.00

Faculty Resources:

As the course was designed with a view to develop it as a model to be followed in future by the Academy, attempt was made to identify faculty resources on TOT of repute in Bangladesh, besides those within the organisation. It was possible for the consultant to assemble a mix of faculty resources, most of whose deliberations satisfied the participants. The distribution of the guest and BARD faculty resources handling technical sessions during the two phases were as follows:

Table-2.3 : Distribution of Sessions According to Faculty Resources

Faculty Resources	No. of Sessions	Percentage of total technical sessions
BARD faculty (including the consultant)	21	55.26
Guest faculty	17	44.74
Total	38	100.00

Training materials:

The participants were provided with the following training materials supporting the various topics addressed in the course.

i) Manual on Audio-Visual Communication in Training:

This manual was produced by the consultant (Training and Education) as a part of his TOR in the ADB Project Document. The major focus of the manual was on providing some simple techniques of preparation and presentation of commonly used projected and non-projected visual and audio visual materials in training situation. The manual is presented in Part III of this report.

ii) Compilation of Reading Materials :

An attempt was made by the consultant to provide some basic information in this compilation covering various topics addressed in the course.

iii) Handouts distributed on the topics discussed by the speakers :

Besides the above mentioned two items, the speakers also provided some handouts on various points made by them during their presentation.

iv) Compilation of training designs and materials produced by the faculty members. This consisted of all the six training designs and the case studies written by the faculty members during the interregnums, which formed the base paper for discussion.

EVALUATION:

Programme Effectiveness :

In order to get the feedback from the participants regarding the effectiveness in terms of different dimensions of the course, the evaluation proforma designed by the Consultant was administered on them. This was done, besides getting feedback, also for testing the proforma. Responses were sought on the different dimensions of the programme against a four point scale

with maximum and minimum obtainable scores of '4' and '1' respectively. Table 2.4 provides a composite account of the scores obtained during the two phases taken together.

Table-2.4 : Programmes Effectiveness Score : Distribution in Respect of Various Dimensions.

Sl. No.	Various Dimensions of the training programme	Average Score of two phases	Percentage
1.	Relevance of programme objectives	3.62	90.50
2.	Relevance of contents to the learning objectives	3.37	84.25
3.	Effectiveness of contents in increasing efficiency	3.16	79.00
4.	Effectiveness of training methods used in various sessions	3.34	83.50
5.	Trainers' effectiveness	3.16	79.00
6.	Adequacy of training materials	3.32	83.00
7.	Quality of visual and audio-visual aids used in sessions	3.31	82.75
8.	Physical facilities	3.37	84.25
9.	Overall effectiveness	3.42	85.50
Programme Effectiveness		3.34	83.50

The programme effectiveness score by averaging the scores obtained against each of the nine dimensions was found to be 3.34 or 83.50 percent, which may be considered to be inclined more towards 'very effective'. Table 2.3 provides an account of the evaluation scores in respect of all the nine dimensions of the programme as well as the programme effectiveness for the two phase taken together.

CONSULTANT'S COMMENTS

The experiences obtained while conducting the TOT course will be very valuable in standardising the course for replication y the Academy. The following paragraphs provides an account of such experiences.

- 1) While designing the programme, effective feedback provided by the faculty members in respect of their expectations from the training course was definitely the pathfinder.
- 2) The design drawn by the consultant could be made more pragmatic and need based, due to the very effective suggestions made by the present Director General of the Academy. On being suggested by him, the opinion of the Directors of various divisions were sought which helped considerably in improving the design.
- 3) In finding out resource persons on training methods outside the Academy who could handle a few sessions, the initial problem was lack of information base in the academy on this dimension. Hence, maintaining an inventory of incountry resource persons in various fields of specialisation pertraining to the training programmes handled by the Academy, could be an effective step in this direction. The suggestions from a few trainers in related institutions of Bangladesh ultimately helped the consultant in identifying appropriate resource persons.
- 4) While compiling the reading material, dearth of holdings was observed on training in the Academy's Library. A Select Bibliography on Training has been prepared. The present collection may be enriched by procuring more books from such list in consultation with relevant faculty members and heads of the sections.
- 5) The excellent services of the computer and Communication Section in the form of composition and reprographic facilities while preparing the manual, reading materials and handouts were very helpful in providing all these materials in time during the training.
- 6) The course administration was smooth due to very effective management on the part of the Course Director and specially the Assistant Course Director, who took all the pains to make the programme successful. Unforeseen general and transport strikes during the first phase of the course obviously created some

problems, which could be solved to a great extent. The problem of distractions due to tasks allocated to some of the participants during the programme created lot of problems, particularly during first phase. One of the probable method of avoiding such problem could be to organise such inhouse programme in batches rather than involving the entire groups of faculty members at a time.

- 7) The interregnum of little more than two months could be utilised in formulating the course designs and developing various training materials assigned to the groups. Although interests exhibited varied among the six groups, generally speaking, they took considerable initiatives in completing their tasks. The weekly counselling meeting by the consultant was effective in monitoring the progress and keeping the groups together.

GUIDELINE FOR CONDUCTING SIMILAR PROGRAMMES IN FUTURE

Similar programmes may be conducted by the Academy for trainers representing various training institutes connected with rural development. For conducting such Programme, the following guidelines will be useful.

- 0 A survey may be conducted with mailed questionnaire among the heads of various training institutes and also sample groups of trainers to identify their specific training needs.
- 0 Training design may be formulated in the same line followed in this course with little modifications if needed.
- 0 The course duration may be kept for three weeks with the provision of daily four sessions of one hour fifteen minutes each.
- 0 The three weeks duration may be utilised in the following manner :
 - (a) the first week may be devoted in introducing the conceptual dimensions
 - (b) the second week should be utilised in developing the various training materials under the supervision of the course Director.

(c) the third week may be used in presenting the materials developed and deliberating upon such presentations.

- 0 Trainers of repute from other organisations in Bangladesh should preferably be involved to a limited scale. Most of the trainers identified during the present course were quite effective as revealed during the speakers evaluation done by the participants.

PART 3

MANUAL ON AUDIO VISUAL COMMUNICATION IN TRAINING

NEED :

Modern training programmes are increasingly becoming dependent on the use of Audio-Visual media for communicating the information more effectively to create durable imprint in the minds of the audience. But a tendency of dependence is observed among the trainers on artists for producing the software materials to be used in training situation. A common perception among the trainers is that to produce the audio-visual materials one requires certain amount of artistic skill. But in reality, eventhough one is not an artist, with some amount of planning and imagination, it is possible to produce one's own materials.

This manual's central focus is on driving home such concept among the trainers, so that they are able to overcome such dependence syndrome. The most widely used audio visual aids, both projected and non-projected used in training, have been taken into consideration while dealing with their planning, preparation and presentation. It aims at facilitating the trainer with a few simple techniques of preparing and using these aids so as to upgrade their training capability.

The manual can be used by the trainers for preparing their own training materials, if they devote some time for planning their learning exposure.

USE OF AUDIO-VISUAL AIDS IN TRAINING

The use of audio-visual aids has become important in modern training programmes. These aids can be successfully used for attracting and retaining attention. Information can be conveyed with minimum time and effort. The concepts can be made more realistic by actual demonstrations and visual charts.

All trainers must have basic information regarding the benefits of different aids. They need not be experts in maintaining or repairing equipment like projectors, tape recorders, etc. However, they must be aware of the role that these aids can play in increasing the effectiveness of the training. Many training departments are not adequately equipped and there is inadequate appreciation of the benefits that can be derived from appropriate use of the aids. In many other training departments, aids are readily available, but they are not used by the trainers.

It is important to mention that audio-visual aids do not represent a training method. We can consider role play, lecture, case study etc. as separate training methods. But audio-visual aids are tools for increasing the effectiveness of training. They can be used in all training methods.

SYSTEMS APPROACH TO AUDIO VISUAL COMMUNICATION

In order to use the different kinds of visual and audio-visual aids for bringing about maximum amount of change in the audience, one has to take into consideration his intended objective, size and nature of audience, nature of the message and

also the resources at the disposal of the trainers. In view of this, he/she should plan the use of visuals and audio-visual aids taking into consideration several factors like; objective, audience, media, resources and technique.

1. **OBJECTIVE** : The trainer should have clear idea in his/her mind about the kind of change intended to bring about among the audience. In getting this idea the key points in the message should be considered regarding which the audience should gather information and their appropriateness to the needs of the audience.

2. **AUDIENCE** : The trainers should have clear idea regarding the size of the audience, their nature in terms of needs and problems they are facing as well as their level of education and knowledge regarding the message. The stages of learning of the audience with respect to the particular idea involved in the message should also be considered.

3. **MEDIA** : In training situation, certain medias are well suited for certain jobs. If we want to communicate the idea of different parts of a sprayer, we may prefer to use a model or the sprayer itself as compared to photographs or slides. On the other hand to show any moving object, the use of motion picture/video would be ideal. So the decision regarding the type of media to be used is usually influenced by the nature of the message. It may be mentioned here that the use of a combination of aids is always preferable to the use of single media.

4. **RESOURCES** : While planning for use of visual and Audio-Visual Aids, the trainer should consider the available resources in terms of finance, equipment and facilities for preparing and using them. We may have a film projector and films but may not have electricity or a generator for film show in a particular training situation. However the lack of availability of resources should not be overemphasized. Eventhough we may not have an artist, visuals can be prepared out of cutout pictures from journals and magazines etc.

5. **TECHNIQUE** : The preparation of different kinds of visual aids demands specific techniques to be followed in their layout and design. While taking photographs, the use of camera is not the only technique to be followed, but the direction, distance and face of the object are also to be considered. For preparation of slides and overhead transparencies, specific proportion of sizes are to be followed in preparing artworks.

6. **PREPARATION** : Preparation of most of the visuals calls for a thorough understanding of the subject matter on which we are preparing our aids. Different visuals call for different treatments of our messages. We have to find a way how best the messages can be depicted for easy understanding by the audience. The important points to be considered in preparing visuals are: local interest, technical correctness, logical sequence of ideas and jotting down points on separate cards for every visual, and rehearsal before using them.

For most effective use, the Visual and Audio-Visual aids should be incorporated in the teaching plan which may be considered as an instructional prescription or a blue print which should be followed to achieve the objective with reference to a programme. It is an administrative document that dictates how the facilities, time at the disposal of the communicator should be organized in relation to the content or message, so as to develop highest degree of skill, knowledge and attitude on the part of the audience.

Elements of a teaching plan

There are many different forms of planning a teaching programme. Any of such forms may be selected to suit the needs of the audience. Nevertheless, all teaching plan, in whatever form it may be, must include the following components.

1. Title of the subject matter- The teaching plan must have the title of the subject. The selection of subject matter should be done considering the problems or needs of the audience, their ability, level of knowledge and education.

2. Specifying the subjectmatter into several topics :- Findout the different materials of the subject matter and grade them in 'must know', 'should know' and 'could know' category. Be quite firm with yourself at this classification stage. Remember that your classification depends upon your objective, the subject matter title, the group and the time available and not upon your wish to talk on the topic. First take up all the 'must know' category and then if your time permits consider 'should know' and

'could know' categories. One of the commonest error in communication is the attempt to transmit too many ideas at a time. So be ruthless in the selection of the topic.

3. Objective :- The objective must be stated in terms of terminal behaviour which are expected from the audience i.e. their knowledge and skill at the end of the teaching of a topic is over.

4. Duration of each topic in the plan :- The time allotted to each of the topics selected should be specified.

5. Presentation :- Presentation is the main component of the teaching plan. At this stage the trainer decides how the messages are to be used to communicate the topic so that the desired behaviour change takes place. From among all such medias, the best one or group of medias are selected which can be used considering the resources and time available at his disposal. At this stage the trainer usually plans about the allocation of responsibilities among his fellow workers.

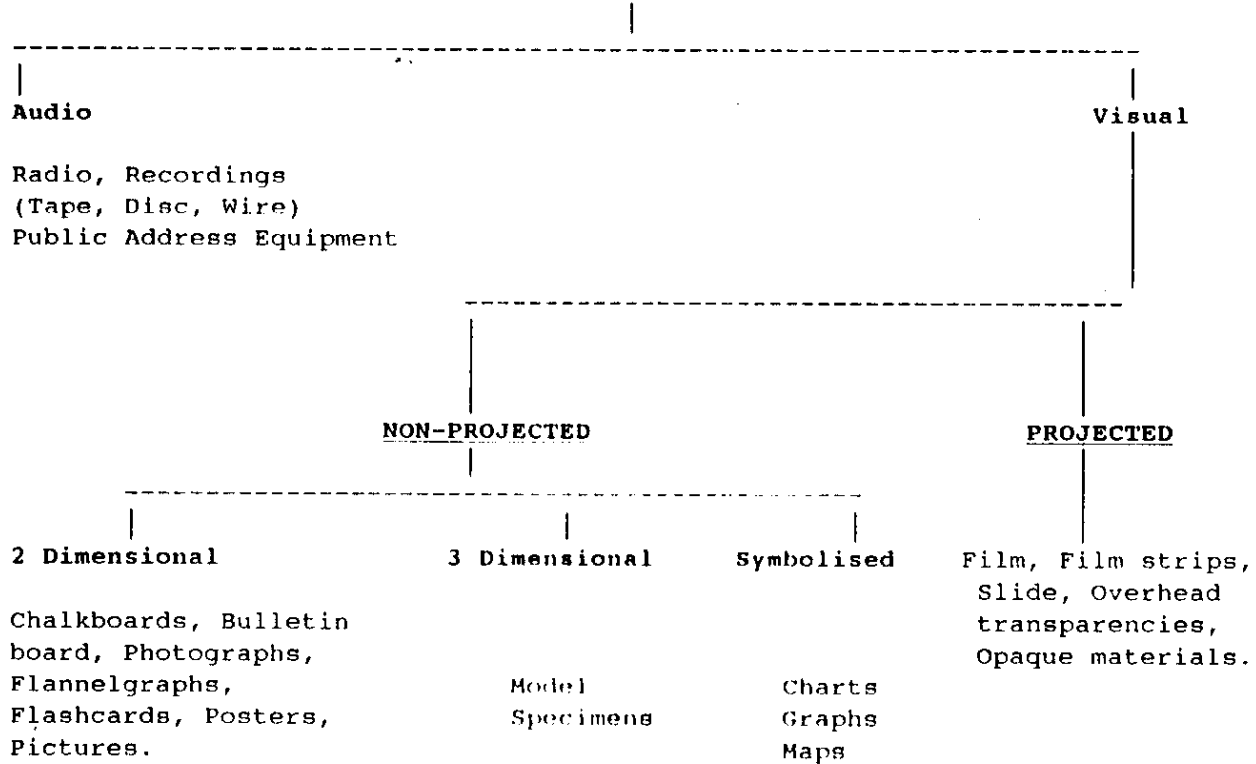
6. Evaluation :- The evaluation techniques of the medias as well as the terminal changes in the behaviour of audience should also be decided at this stage.

Thus the visual and audio visual aids should not be selected merely to use them but they are to be incorporated in the training design so as to produce most effective result in terms of participants response.

TYPES OF AUDIO-VISUAL AIDS USEFUL IN TRAINING SITUATION

There exist a wide variety of aids the trainers can use on the basis of suitability and availability. Some of the aids can be prepared by the trainer and the others can be purchased from commercial sources.

CLASSIFICATION OF AUDIO-VISUAL AIDS/MATERIALS



It may be stated at this point that for presenting some of the projected and non-projected materials, the help of some equipment is required. They are the Audio-Visual aids. It is generally found that the terms audio-visual materials and 'audio-visual aid' are often used interchangeably. This is more so because, it is difficult to maintain the distinction always as there are several audio-visual materials which themselves act as aids. The example of such materials are posters, models, specimens, flash cards, all kinds of literatures, charts, graphs,

maps etc. So for our purpose we will also use these terms interchangeably.

AUDIO- MATERIALS

1. PUBLIC ADDRESS EQUIPMENT

What - This equipment, commonly known as P.A.E. consists of a microphone, amplifier and loudspeaker. It is used to amplify and reinforce sound. The microphone converts sound waves into alternating electric currents which are fed into the amplifier. The amplifier is an electric device to amplify these electric currents. These amplified electric currents are fed into the loudspeakers where they are converted into sound waves and the magnified sound is heard.

Why - It is generally used in meetings involving large number of audience in order to make the message audible.

2. TAPE RECORDER

What - A tape recorder is a machine for recording sound on magnetic tape by electro-magnetic processes. Its purpose is to preserve original sound for later use.

Why - 1) for repeated use.
2) erased or re-recorded to remove mistakes or make changes.
3) can be very effectively used in conjunction with visual materials.

VISUAL MATERIALS

A. NON-PROJECTED

(i) 2-Dimensional

1. CHALK-BOARD

What - The chalkboard, popularly known as black board, is the most universally used visual. Properly placed and used, it is of great value in training teaching at all levels.

Why - for expressing:

Definitions,	Sketches,	Announcements,
Key words,	Maps,	Comparisons,
Outlines,	Graphs,	Summarisation,
Drawings,	Diagrams	Assignments,

2. BULLETIN BOARDS (TALK BOARD)

What - It is a device specifically set aside for displaying many items of interest and educational value to the intended learners or audience.

Why - 1) to attract attention
2) to stimulate interest
3) to deliver a message
4) to produce action.

3. FLANNEL BOARD (FELT BOARD)

What - Flannel board consists of a stiff backing covered with felt material on one side. Any graphic material may be used on a flannel board.

Why - Flannel graph is well adapted to step by step story build up. One can place interesting pieces on the board and keep the audience wondering how the story will end.

4. FLASH CARDS

What - Flash cards are brief visual message on poster board cards flashed (turned over at short intervals) before the audience to emphasize important points in a presentation.

Why - They can be made quickly.
can be made from inexpensive local materials
can be carried easily
can help speaker emphasize main point of his talk and are easy to use.

5. POSTERS

What - A poster is designed to draw attention of a large number of people towards an idea. It usually includes only a few words with an illustration.

Why - It is designed to
1) catch the attention of the passerby;
2) Impress on him a fact or an idea;
3) simulate him to support an idea;
4) make him get more information or take required action.

6. PICTURES (Non projected still pictures)

What - Pictures are one of the most versatile and effective visual aid. A common saying states 'one picture is worth a thousand words'.

Why - They 1) Arouse interest
2) Introduce new subjects.
3) Illustrate specific steps in problems.
4) Build wholesome attitudes.

- 5) Develop appreciation.
- 6) Test knowledge of the learner.

(ii) **3 - Dimensional**

1. **MODELS**

What - Models are replica/duplicate of real objects and scaled representatives of things. Alongwith specimens and exhibits, they are often called three dimensional visuals.

Why - They

- 1) can be examined, handled and operated.
- 2) show how things look operative.
- 3) show relationships.
- 4) simplify complex working parts of mechanisms.
- 5) may enlarge small objects for group study or reduce large objects for easy manipulation.

2. **SPECIMENS**

What - A specimen is the real object in preserved form. It may be part of an object or one of a group or class to represent the whole group, in other words, a typical example.

Why - Specimens are especially useful because they are real and thus provide the learners with direct experience.

(iii) **Symbolised**

1. **CHARTS**

What - Charts are pictures of relationship and changes. They are graphic and pictorial representations used to tabulate a large mass of information or to show a progression. They are visual symbols helpful in explaining a subject matter. Charts are often referred to as symbolized visual.

Why - They

- 1) make facts and figures clear and interesting.
- 2) show or compare changes
- 3) show size and placement of parts.
- 4) show operational procedures.

Types of charts: While there are innumerable varieties of charts, some types in common use are:

1. Bar charts are made of a series of bars along a measured scale. They are used to compare quantities at different times or under different circumstances.
2. Pie charts are in the shape of circles, and used to show how several parts make up the whole. They may show percentages, proportions etc.

3. Tabular charts are used to bring together in compact form a mass of related data.
4. Tree charts are used for showing development or growth of a thing. The origin is shown in the form of trunk and various developments are shown as branches of a tree.
5. Flow charts are shown by lines, arrows, etc. They show organisation or structure of departments, institutions etc.
6. Pictorial charts give the viewer a vivid picture and create a rapid association with the use of graphic messages like cartoons, illustrations etc.
7. Overlay charts consist of a number of sheets which can be placed one over the other conveniently. On each individual sheet a part of the whole is drawn. This enables the viewer to see not only the different parts, but also how they appear when one is placed over the other. After the final overlay is placed, it shows the ultimate product. This type of presentation is dramatic and effective.
8. Pull charts consist of written messages on a large sheet. Messages are hidden by strips of thick paper held in position. The messages can be shown to the viewer, one after another, by pulling out the concealed strips. This provides suspense to the viewer.
9. Strip (tease) charts are similar to the pull charts. Messages, words, pictures, etc., are concealed by using strips of thin paper instead of thick paper. The ends of thin paper strips are pinned or pasted to both ends of the message on the big sheet. Whenever the message on the big sheet is to be exposed, one end of paper strip is stripped out. This has the advantage of surprise or anticipation.
10. Flip charts carry a series of ideas arranged sequentially. Individual chart are tacked or bound to some support and as the lesson progresses, are flipped by the teacher. This kind of chart exposes the audience to segments of the subject, in sequence, and holds attention remarkably well.

B. PROJECTED

1. MOTION PICTURES (Films)

What - Motion pictures are really a series of still pictures on a long strip of film. Each picture is flashed momentarily on the screen and the rapid succession of still pictures (each of which shows the subjects in a slightly different position) gives an illusion of movements. For projecting the motion picture the help of movie projector is needed.

- Why - 1) A complete process involving motion can be shown in a short time.
2) People identify themselves with those in the picture.
3) Compel attention.
4) Brings closer the reality.
5) Speed up or slow down time.
6) Enlarge or reduce actual size of objects.

2. FILM STRIPS

What - A filmstrip is a series of still photographs, diagrams, charts, lettering or drawing on a strip of 35mm film.

- Why - 1) Story can be told in steps.
2) A script can help tell the story.
3) Very light, can be easily stored in cans and carried
4) Condenses much information into a small package.
5) Low production cost.

3. SLIDES

What - A slide is a transparent picture projected by passing rays of light through it. Slide projectors are needed for projecting them.

- Why - 1) can be arranged in any sequence.
2) story can be told in steps.
3) can be easily selected from a large number.
4) allow pauses for discussion.
5) are good media for discussion.
6) can be prepared at low cost.
7) can be easily handled and transported.

4. OPAQUE PROJECTOR

What - Opaque projector projects enlarged images of small opaque non-transparent materials like, maps, pictures on to a screen.

- Why - 1) easy to handle.
2) projects wide variety of material.
3) enlarged materials, many can see and learn.

5. OVERHEAD PROJECTOR

What - Overhead Projectors are used for enlarged projection of diagrams, charts, graphs etc. drawn on transparent, acetate sheets.

- Why - 1) for projection of materials under normal day light.
2) enables the speaker to deliver his message facing the audience.
3) for replacing the use of chalk board.

DESIGNING ARTWORK FOR INSTRUCTIONAL VISUAL MEDIA

The designing of the artwork is the first step in the preparation of visual aids of all kinds. Most artwork is only an intermediary in that it is intended to go to the camera or document copier for conversion into various forms of software, or to the duplicator for reproduction, but the skills required are equally applicable to the preparation of charts, Flash cards, Flannel graphs and such types of other display materials which are ends in themselves.

It is not necessary to be a trained artist to produce effective visual aids. All that is required are a few simple materials and knowledge of the techniques involved. The following section provides some practical suggestions and guiding principles, which should be considered while designing artwork for instructional media.

Types of Artwork

Artwork can be conveniently divided into three major categories:

- * Graphic - Charts, diagrams, graphs and other similar graphic materials used to visualize statistical data, processes, relationships etc. belong to this category.

- * Lettered - These are used for titles and captions, to emphasize key words, to enumerate topics or to summarize.

- * Pictorial - This kind of artwork ranges from simple line drawings or sketches to detailed drawings, cartoons, etc.

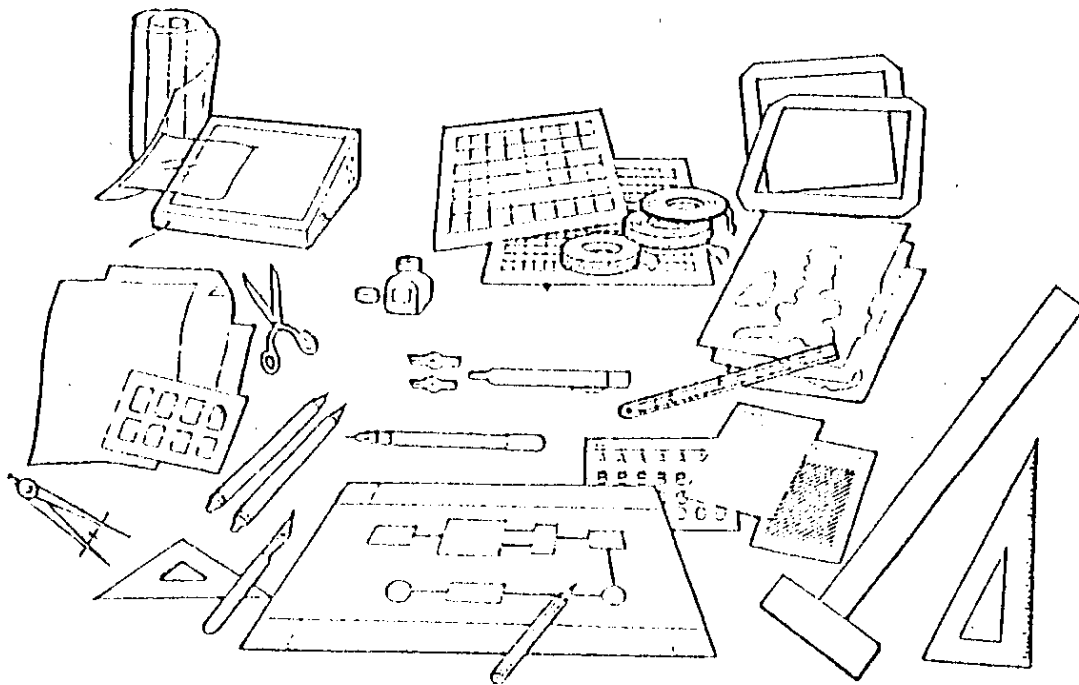
Combination of graphic and photographic images will often make very effective visual masters - this is a common technique when making title slides

Choosing Materials

There are many products available on the market that can aid you in designing your artwork. They include: base materials, pens and

markers, crayons and paints, drawing and lettering aids, etc. The choice will depend on the availability, cost, ease of use, and the required standards of quality. Most of the common items needed for the preparation of artwork can be purchased from local stationers or art supplier.

In order to be able to work methodically and rapidly, collect all necessary materials and keep them near your work place. Care must be taken to clean and store materials after use.



Assorted Materials Needed for Artwork Preparation

Planing Artwork

Preliminary planning and organization will contribute to the success of any visual aid. Artwork must be planned with consideration for size and proportions, for design and layout features, and for the resources, skills, techniques, materials

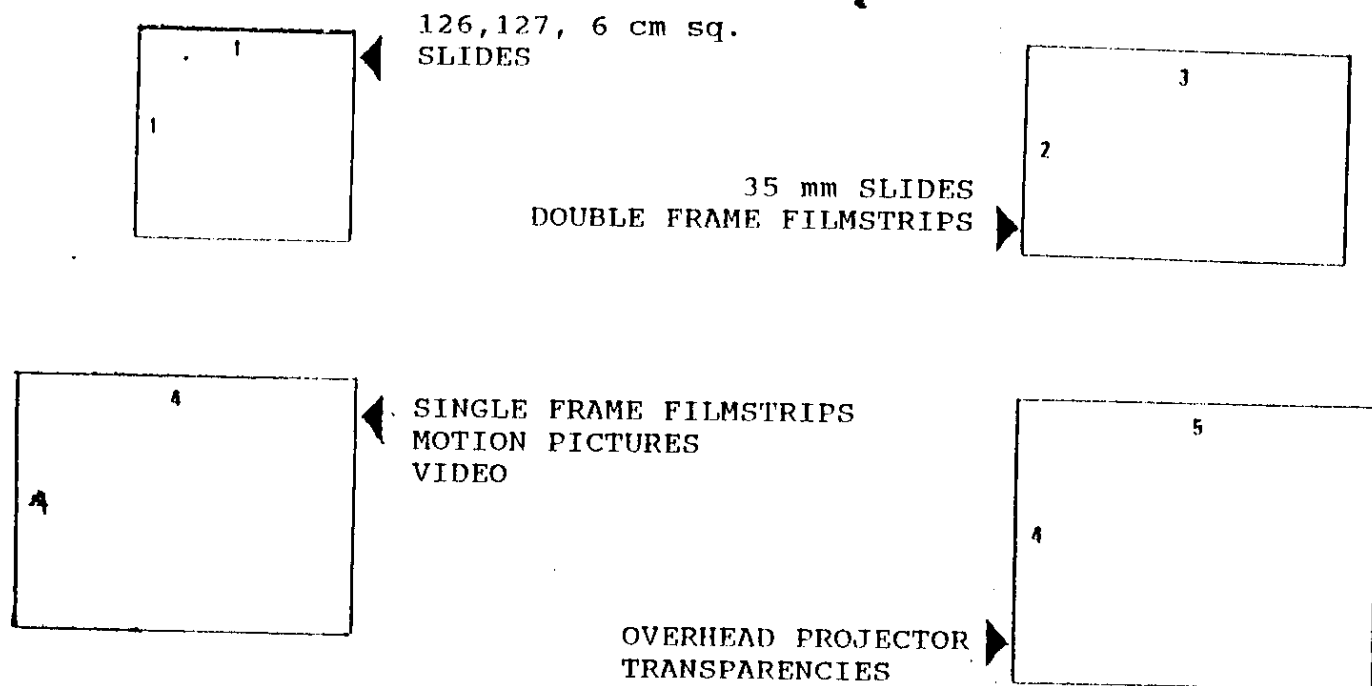
and facilities that can be employed. If more than one copy is required, then the method of reproduction must be taken into consideration.

To produce an aid for a learning situation, you must carefully follow the following steps:

- analyse the outline of your lecture and define the learning steps (the amount of information required to lead to a definite conclusion).
- examine each step and decide what has to be supported and reinforced by visual material.
- for each step, decide which aid is most suitable, whether it be an overhead transparency, a chart, flip charts, magnetic board material or flannel board symbols.
- define how long the aid will be used during your session in order to determine how detailed your image has to be.
- having decided on the different methods and materials needed for each learning step, edit the sketches of the different images to achieve a homogeneous presentation.
- start working on the following methods and have the required material at hand.

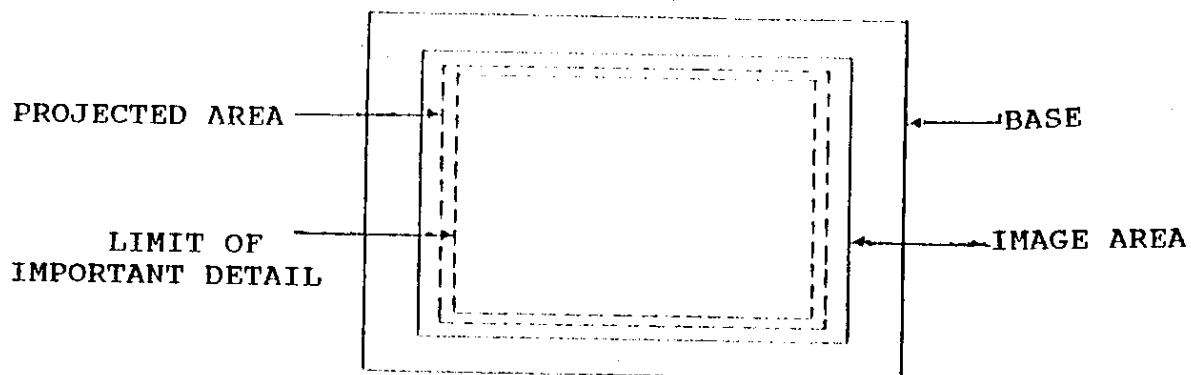
Visual formats. Although projected visuals should all be designed in horizontal format, the ratio of height to width is not the same for all media. Examples of common visual formats are shown below.

All artwork for a particular type of projection must be designed in a format which is proportionate to the projectable area of that particular medium. There are worthwhile advantages in establishing uniform sizes for artwork and making these sizes standard. The frequent changing of reproduction ratio takes time and complicates the photographer's work, increasing costs. Standardization of the format will ensure consistent results in reproductive quality and legibility. A safe margin should be left



Visual Formats for Various Projected Materials

around the edges to accommodate the tolerances required in copying. This will also facilitate handling and filing of artwork. Important elements, such as captions, text, etc. should be inside a further safety margin.



Format for Projectable Area

LAYOUT

In planning artwork, the first consideration is the layout. The primary objective of layout, or arrangement of symbols, shapes, lines and areas of colour within a given space, is to draw the viewer's attention to the centre of interest. The overall layout must be balanced in relation to colour, tone, contrast, and the spatial arrangement, to give visual emphasis. Aesthetic design, however, must not obscure the teaching points.

At first, you may experience some difficulty in preparing the layout. It is advisable in such cases to try out possible alternative forms of presentation before settling on one.

- Layout is the arrangement or display of images and text within a given space.
- A good layout will contribute to the message and emphasise the most important parts of it. A poor layout will detract from the message and therefore lessen the effectiveness of the visual material.
- A good source of learning about and of comparing layouts can be found in newspaper and magazines. The advertisements, a field of visual communication designed to persuade you to do something, will give you idea about wide range of different layouts.
- It would be of great help in your future work to start an "ideas bank" by filing clippings of good advertisements. If you run out of ideas, go through your "account" and make an "inventory". You may be almost sure that a look through your files will stimulate your creativity.
- Especially valuable in this connection might be a collection of striking cartoons or comic strips.
- One should easily be able to distinguish between key ideas and less important ones. To achieve this, you can apply stronger and bolder lines, or stronger colours.
- Minimise the number of ideas to be shown at one moment. The maximum of ideas presented on a teaching chart should not be more than five, but even so you should use techniques such as the window system or flapping to discuss only one at a time.

- If the number of ideas is more than five, you should design a sequence of charts, transparencies of symbols.
- An appealing aid is a balanced one. Looking at the aid, you should have the feeling that everything is in its proper place. An aid which is not balanced gives you the impression that it is not complete, not in proportion. The balance does not always have to be symmetrical - asymmetrical designs may in some cases even be more attractive.
- Test the drawing, or have another person test it. If the drawing gives the impression that something is missing, do not add any unnecessary details. The image is surely out of balance.
- If your sketch is not satisfactory, you and your test person should try cutting it into sections and shifting them around until you are satisfied. Then you can fix the pieces in their new places with glue and start working on the original.

Artwork Preparation

Having produced a draft layout of the artwork and chosen the appropriate materials, the next stage is to prepare the artwork in final form. There are three aspects to be considered;

1. the drawing or pictorial part
2. the use of colour, and
3. lettering.

1. Drawing

Creating the image is usually the main concern while producing visual media. If one has an art background or has access to professional help, the problem is simplified. In many situations, however, one will have to resort to the use of clip-art files, pictures from magazines, or to the many other sources of ready-made pictures. Integrating these image materials into the final artwork will require a knowledge of such methods as tracing, enlarging, and reducing so that the image can be converted into usable form.

Whenever possible, only one idea at a time or a limited topic should be presented on each visual. The image should be bold, simple, and free from unnecessary detail. Clarity should be placed above most other considerations of artistic presentation.

There are basically two kinds of pictorial presentation:

- freehand drawing, which requires a certain amount of skill and training;
- "matchstick men" and simple forms, for those with little artistic skill, Charts, diagrams and other similar graphic materials often require simplification for good readability. The clever use of keys, stylized symbols, and abbreviations will all contribute to presenting the most essential information in the clearest way.

Drawing facilities:-

- All you need is a large amount of information and creativity. The lack of technical equipment should not prevent you from starting the job. The following list of materials may make your job easier and reduce the time needed for your production.
- You need space to work in. This may be the floor of your room, a table, desk, plywood or strong cardboard, and so on up to a drawing board, ideally constructed as lighttable.
- You also need a place where you can store the material that you do not use very often so that you know where to find it.
- You should also have a ruler, a T-square, set squares, a protractor. The most important thing is the ruler; the rest can be produced out of cardboard.
- If you need a right-angle to produce a template representing a set square, there should be no problem.
- When drawing the set square template, the length of the 3 sides should have the following ratio: 3:4:5, for example 15cm : 20cm : 25cm.
- Then a compass, if possible with an adapter of felt pens. But do not worry if you do not have one. A simple piece of string with a nail for the centre will do the job and if you are unable to find the string, take a piece of paper and two pencils.
- Scissors, paper cutters or a sharp knife to be able to cut the paper into pieces are also necessary.

- The next item on the list is a soft eraser, and for transparencies some spirit and cotton wool for corrections. White ink or white water-soluble paint can also be used for corrections.
- Get together an assortment of pencils, felt pens, simple fountain pens of different degrees of thickness and colours.
- You can use coloured inks, coloured chalk, water soluble wall paint or powder paint to colour your images.
- You should also have a variety of paper (plain or coloured) and cardboard.
- You will find that tracing paper, adhesive tape, paste and glue, paper clips and drawing pins are all very useful.

Again, do not wait until you have all your facilities before beginning your work. What you need most are ideas to solve your problems.

It is of course obvious that you have to keep these materials clean so that they will last longer.

Drawing techniques:-

There are various techniques of drawing illustrations which can be followed conveniently even if you are not having the artistic skill.

(1) Tracing:

- Tracing is a simple and rapid method of copying drawings. It is also a good exercise for reviving your drawing skill.
- In principle, you just cover the original with your sheet of paper, provided that your drawing paper is not too thick, to see the outlines of the underlying original.
- If possible, use the paper on which you intend to produce your visual aid, otherwise you will first have to transfer the image onto a more translucent material, such as tracing paper, and from there onto the paper on which the image is to be produced.
- The indirect transfer method, using translucent material, can be done in the following way.

- Fix the sheet of tracing paper firmly into position over the design to be copied. The original design should be fixed as well so that neither will move while you are copying.
- Start tracing the outlines with clear, bold lines, beginning in the top left-hand corner. To protect the tracing paper, slip a small sheet of paper under your hand.
- Remove the tracing paper and turn it over. Use a soft lead pencil and run over the lines on the back of the sheet.
- Turn the tracing paper over to the right side again and place it on the surfaces of the paper to be used for the aid.
- With a hard lead pencil draw over the traced outlines, exerting sufficient pressure so that the lead particles on the back of the tracing paper will be transferred onto the surface of the aid.
- Remove the tracing paper and go over the lines of the image with your chosen materials.

(2) Light source copying:

- The basic idea of this copying technique is the use of any light source to make the paper translucent. The stronger the paper, the stronger the light has to be.
- The different light sources can be:
 - A window, preferably when there is sunshine.
 - A lamp and a glass plate supported by objects such as books or bricks.
 - A plastic-covered neon lamp with a smooth surface.
 - A specially prepared light box.
 - A light-table.
 - A drawing board with a light-table.
 - An episcopo.
- Fix your original to the lit surface with the drawing paper on top of it.
- Trace the outlines in pencil and complete the design afterwards. When you become skilled in tracing, you will be able to trace the design directly from the original material.

(3) Carbon Paper Copying:

- Fix your drawing paper on a table and cover the space where the image should appear with carbon paper. Fix the carbon paper, making sure it is large enough. If it is not, use more than one sheet so that the space needed for the image is fully covered.

- Place the original to be copied on top of the paper and trace the outlines with a pencil.
- Remove the original and the carbon paper carefully and complete the drawing with the intended material.
- If you do not want to mark your original with your copying pencil, cover it with a sheet of translucent flimsy paper or cellophane.

(4) Use of Copying Machine:

- If you can find photocopying machine for reproducing your images to the size you need, use it, but remember that this process may be expensive.
- Make sure that the lines of the original are strong enough to achieve a sufficiently good print.
- If necessary, strengthen the lines of the original with a soft pencil or Indian ink.
- Complete the image with the material required
- If you want to copy only a part of the original or if you want to reduce the amount of visual information, cut out the information you want to copy and fix it on a sheet of paper.
- If you cannot cut the original, cover the unwanted information with pieces of paper before copying.

(5) Templates and Stencils:

- One way of simplifying the drawing process is to use templates and stencils
- Templates and stencils can also be used as a means of reproduction for a small number of similar aids.
- You need strong paper or cardboard. Trace the outlines of your images by applying the techniques described before.
- Cut out your image using a sharp knife, a razor blade, a paper cutter or scissors. For templates, you just cut along the outlines, but stencils are more complicated.
- To cut out stencils, you have to make sure that the stencil does not fall to pieces due to your cutting. To avoid this, and to maintain a certain stability, you have to leave a number of bridges. For instance, if you want to cut a stencil for the letter 'O', you will leave bridges to stop the middle part of the letter from falling out.
- When you have completed your device, you will place it where it should be on the aid and trace the outlines or fill in

the stencil. Remove the template or stencil and finish your image.

- This technique can also be used on any kind of board, such as a chalk board.

2. Use of Colours

- If you look at a visual aid made up of the background paper with just one more colour added for all the drawings or print, it does not seem very attractive at all. It looks flat. Just a few spots of another colour may result in a more pleasing picture and the symbols will catch your eye.
- Again, there is no general rule for the application of colours, because some colours have different meanings in different cultures.
- Perhaps the following list of colour combinations will help you in your selections:

RECOMMENDED COMBINATION OF COLOURS ON NON-PROJECTED MATERIALS

BACKGROUND

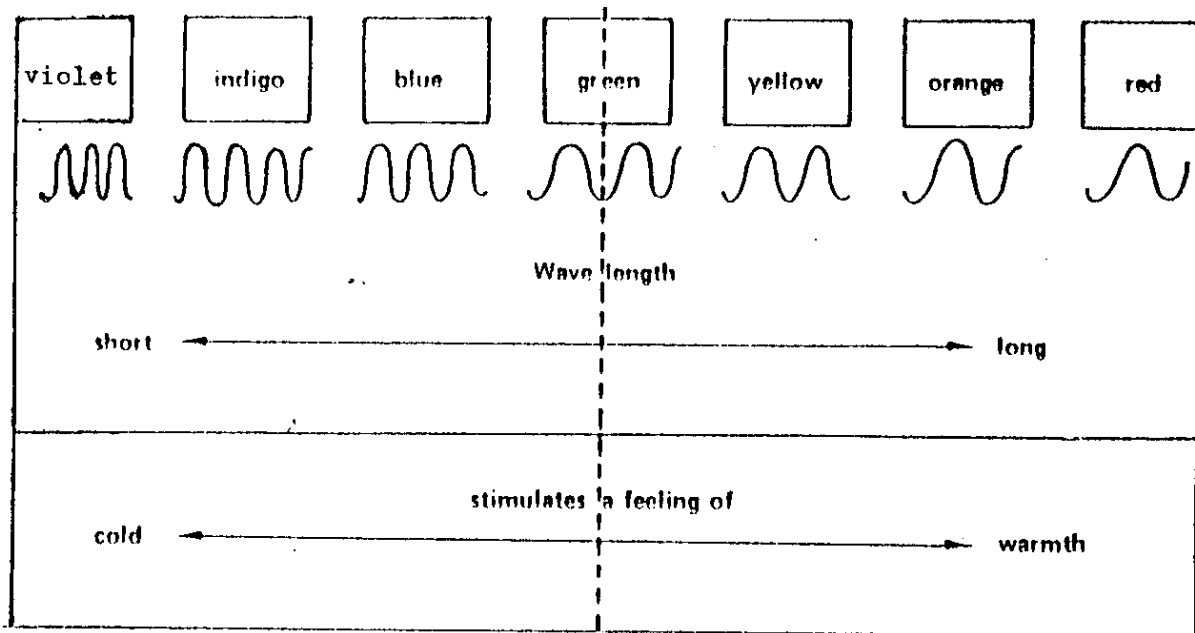
SYMBOLS

White	Red, Green, Blue, Black, Brown, Violet
Yellow	Red, Blue, Black, Brown, Green
Light Blue	Yellow, Brown, Violet, Black, Blue, Red
Dark Green	Black, White, Yellow
Pink	Green, Black, Blue
Red	Green, White, Yellow
Dark Brown	Orange, Black, White, Light Green, Green
Light Brown	Green, Blue, Red, Black
Light Grey	Blue, Gold, Red, Black
Black	Gold White, Red, Light Blue, Silver, Green
Light Green	Gold, Brown, Red, Black

Application techniques:-

For colouring your visuals the following techniques can be used:

- (1) use of coloured chalk
- (2) use of crayon, marker pens



Psychological Effect of Colours

- (3) Use Water colour or other water based colours
- (4) Use of coloured felt pens
- (5) Use of cut-outs of coloured paper
 - With cut-outs of coloured paper, even pasted in different layers, you will achieve good results and the image will have more depth.
 - For statistics, diagrams or for emphasis, this technique will be very useful.

3. Lettering:

With few exceptions, practically every kind of visual medium requires lettering. lettering serves to identify, level, emphasize, explain, clarify and reinforce, and often to add supplementary information. A few guidelines for lettering the visuals are:

- Minimize the amount of text in any one image.
- Bold and clear type face is preferable to ornate lettering.
- Lower-case is better than upper-case (capital letters),
- Too many variations in type face in one visual should be avoided

Lettersize:-

- We have to ensure that when an aid is presented in its final form it will be immediately legible to all viewers. Legibility cannot be overstressed. For projected materials, the minimum letter size is based on the maximum anticipated viewing distance.
- 0 The maximum, as a standard, is accepted as being six times the horizontal dimension of the picture on the screen (6W).
- 0 The maximum viewing distance for television, in terms of the screen size, is greater, being 12W. As you might expect, minimum letter size for television is therefore greater.
- 0 Minimum letter sizes for projected aids are recommended in the table below.

Maximum anticipated viewing distance	Artwork area	
	17x22.5 cm	22.5x30.5 cm
	Minimum letter height (mm)	
4W	2.2	3
6W	3.2	4.5
8W	4.7	6.5
10W	5.5	7.5
12W	6.7	9

- 0 For non-projected materials follow these recommendations:

Maximum anticipated viewing distance(metre)	Minimum letter height (cm)
2.5 m	0.62
5 m	1.25
10 m	2.5
20 m	5.0

- Available on the market today is an unlimited variety of lettering aids. No particular one is necessarily the best for any lettering job. You need to evaluate as many of them as you can - for your own needs, in respect of availability, cost, ease of use, time required for preparation, and resulting quality.

However good the picture content of visual materials, their effectiveness is enhanced by well-appearing titles and captions. Neat lettering, simple designs, attractive colours or background patterns all add a professional touch to your materials.

USE OF PHOTOGRAPHY IN DEVELOPING VISUAL AIDS .

Photography has very important role to play in the process of development of different kinds of visual aids like slides, film strips, photographs, motion pictures etc. In view of this, a thorough working knowledge regarding the camera and its utilization will be helpful.

BASIC PRINCIPLES OF PHOTOGRAPHY

The Camera : How it works

To take a picture, three basic things are needed (other than a subject and photographer) LIGHT, a CAMERA and FILM.

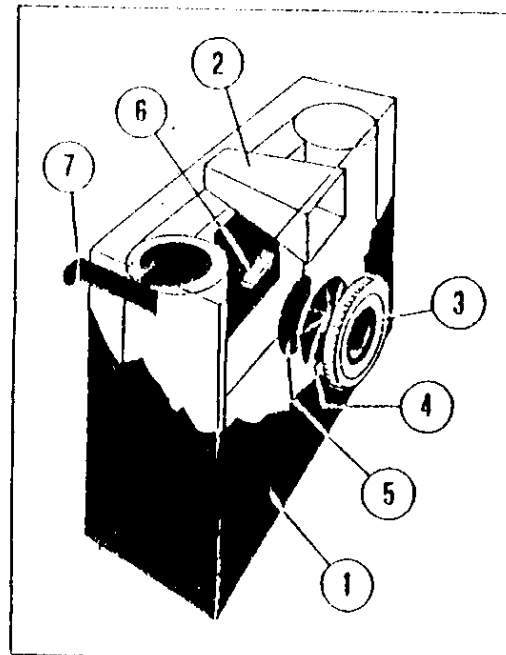
Light reflected from the subject passes through the camera lens and form a latent image (present but not visible) on the light-sensitive film. When processed, this latent image will become a visible image either in reversed tones, as in a negative, or in positive tones, as in a coloured slide.

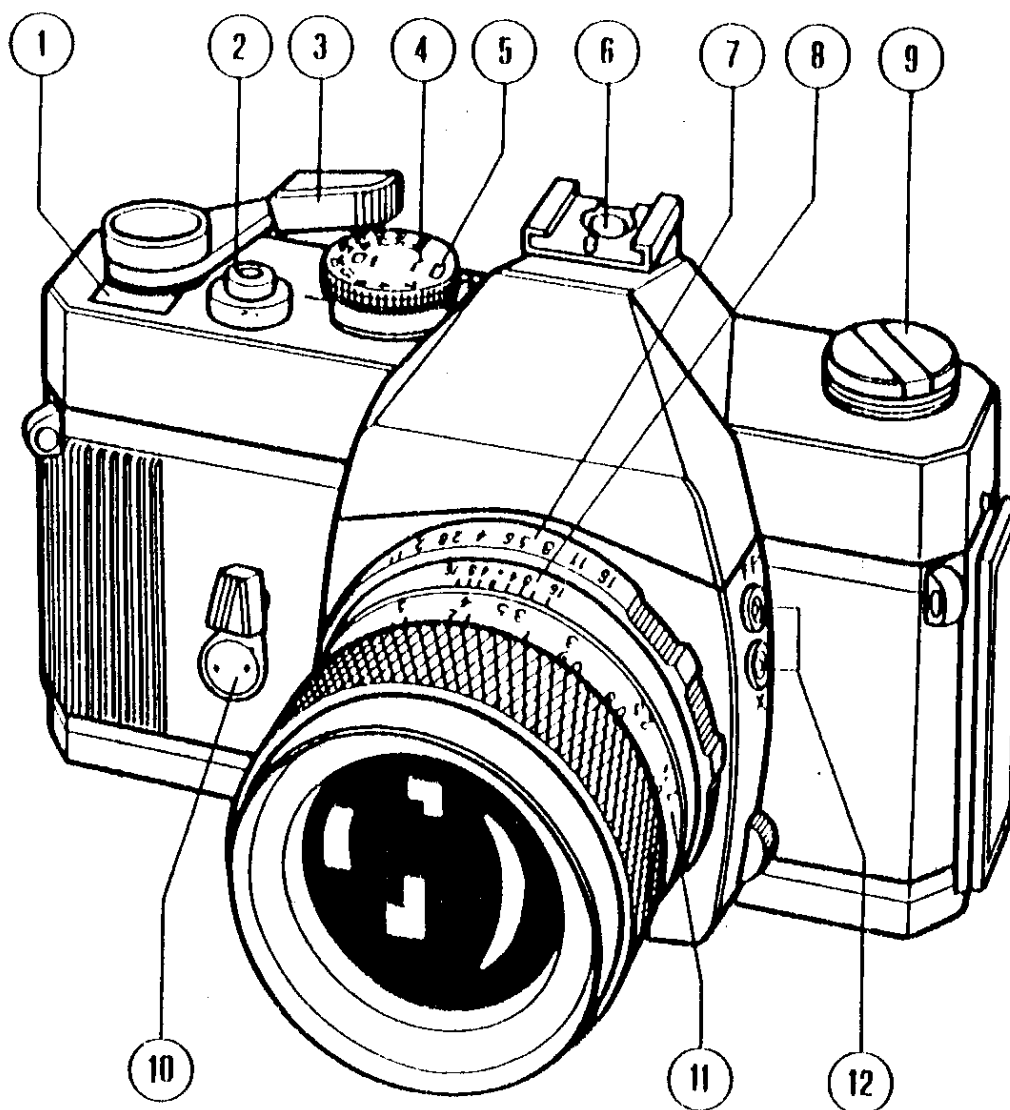
For good pictures, the film should be exposed to the proper amount of light. If too little light reaches the film, the resulting picture will be too dark (underexposed). If too much light reaches the film, the picture will be too light (overexposed). The camera must be adjusted to allow the right amount of light (the correct exposure) to reach the film.

Types of Camera

All cameras, however cheap or expensive, have the same basic parts and work on the same principles. They consist of:

1. A light excluding body to house the film.
2. A viewfinder to frame the subject you are photographing.
3. A lens to give sharp picture definition.
4. A lens aperture(diaphragm) to control the intensity of light reaching the film.
5. A shutter to control the length of time that light reaches the film.
6. A shutter release to operate the shutter.
7. A film advance mechanism to advance the film for the next exposure.





CAMERA CONTROLS

- | | |
|---------------------------|-------------------------|
| 1. FRAME COUNTER | 7. LENS APERTURE RING |
| 2. SHUTTER RELEASE BUTTON | 8. DEPTH-OF-FIELD SCALE |
| 3. FILM ADVANCE LEVER | 9. FILM REWIND KNOB |
| 4. SHUTTER SPEED DIAL | 10. SELF-TIMER |
| 5. FILM SPEED SELECTOR | 11. LENS FOCUSING RING |
| 6. ACCESSORY SHOE | 12. FLASH SYNC. SOCKETS |

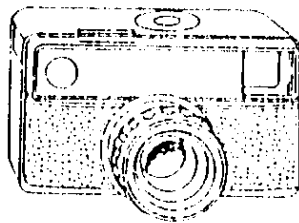
Although all cameras are basically the same, some cameras offer certain features that others don't.

- simple cameras have few or no adjustments to be made by the photographer and are therefore restricted to pictures in bright light conditions.
- Adjustable cameras have controls that allow taking pictures under a wide range of conditions.

Cameras can be classified into groups according to picture size or operating characteristics.

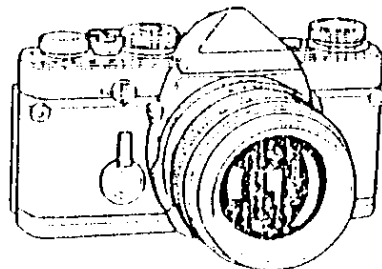
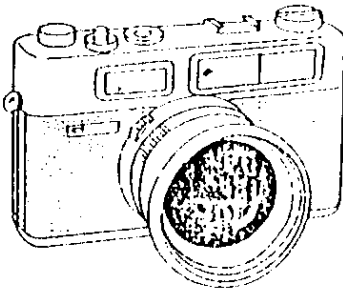


110 POCKET CAMERA

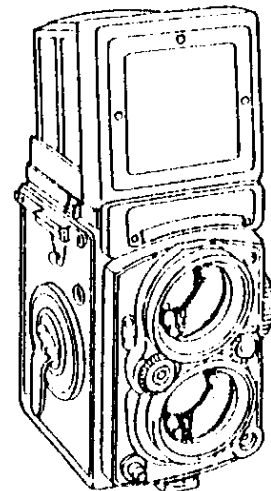


126 CARTRIDGE CAMERA

35mm NON-REFLEX CAMERA



35mm SINGLE-LENS REFLEX



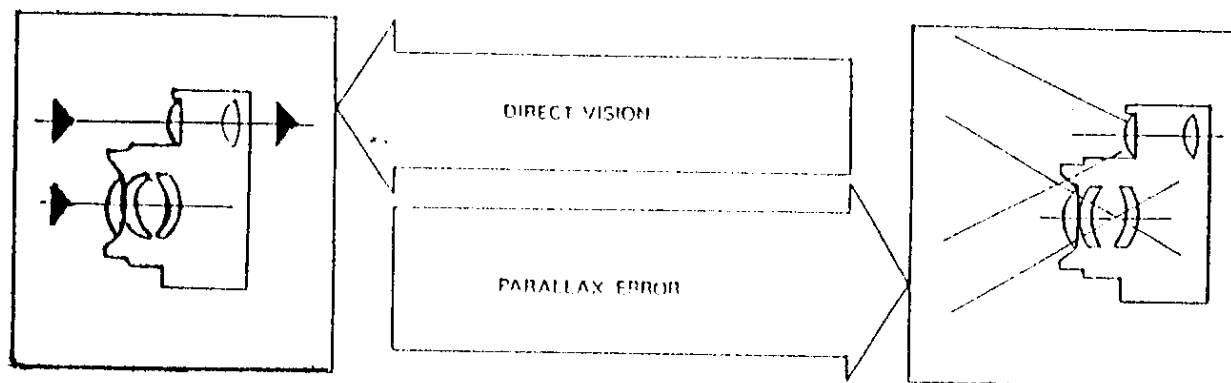
TWIN-LENS REFLEX

Various Types of Camera

Inside the Camera

i. The viewfinder

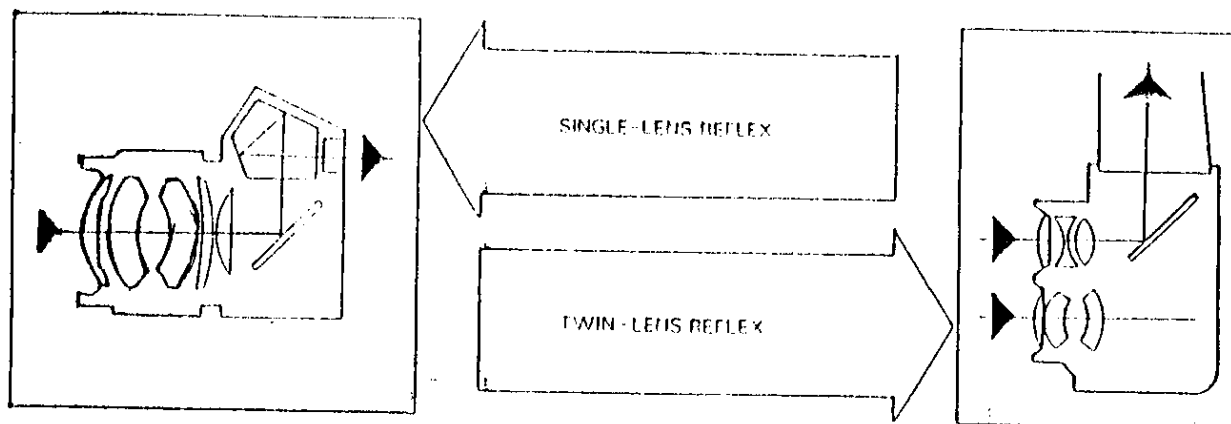
All the cameras have some kind of viewfinder through which to view (and perhaps focus on) the subject. The viewfinder shows the image "seen" by the lens, or an approximation of this. There are basically two types of viewfinder: direct vision and reflex.



On direct vision cameras the subject is viewed through a simple window that is separate from the camera lens. The displacement between the two viewpoints, known as parallax, may result in cutting of a portion of the subject. The closer the subject is the worse this parallax error becomes.

On reflex cameras the subject to be photographed is reflected by a mirror onto a glass where it can be focused and composed.

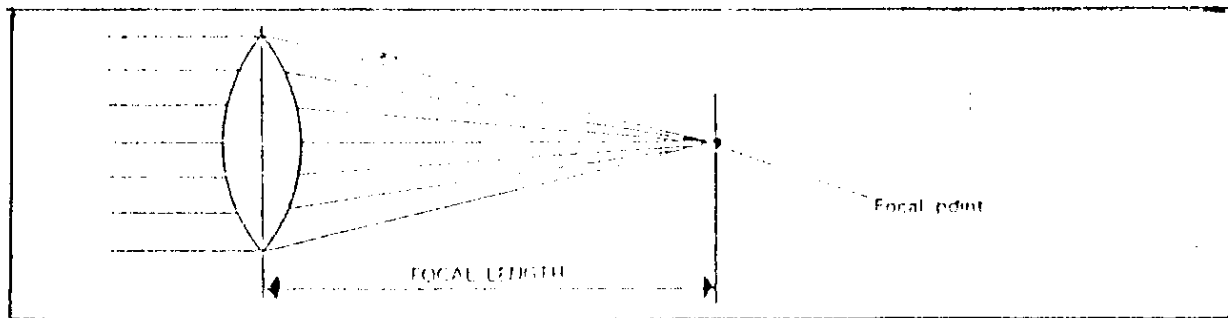
- Single-lens reflex cameras (SLR), allow viewing the subject through the same lens that takes the picture, thus avoiding parallax.
- On twin-lens reflex cameras (TLR), the subject is viewed through the top lens, and the picture is taken through the bottom lens.



ii. Lenses

A lens consists of one or more pieces of optical glass (which are referred to as elements) designed to collect and focus rays of light reflexes from a subject to form a sharp image on the film.

The major feature of a lens is its focal length - This term refers to the distance (measured in millimeters) from the center of the lens to the precise point behind the lens at which the light rays converge (with the camera focussed at infinity)-



The focal length determines the portion of a scene that is seen by a camera lens (angle of view) and the linear size of the subject (magnification).

A lens is called normal when the focal length is approximately equal to the diagonal of the negative or image area of the film with which it is being used.

A lens with a longer focal length than that of the normal lens is called telephoto lens (lens is physically shorter than its focal length).

A lens with a focal length shorter than the normal lens is called a wide-angle lens.

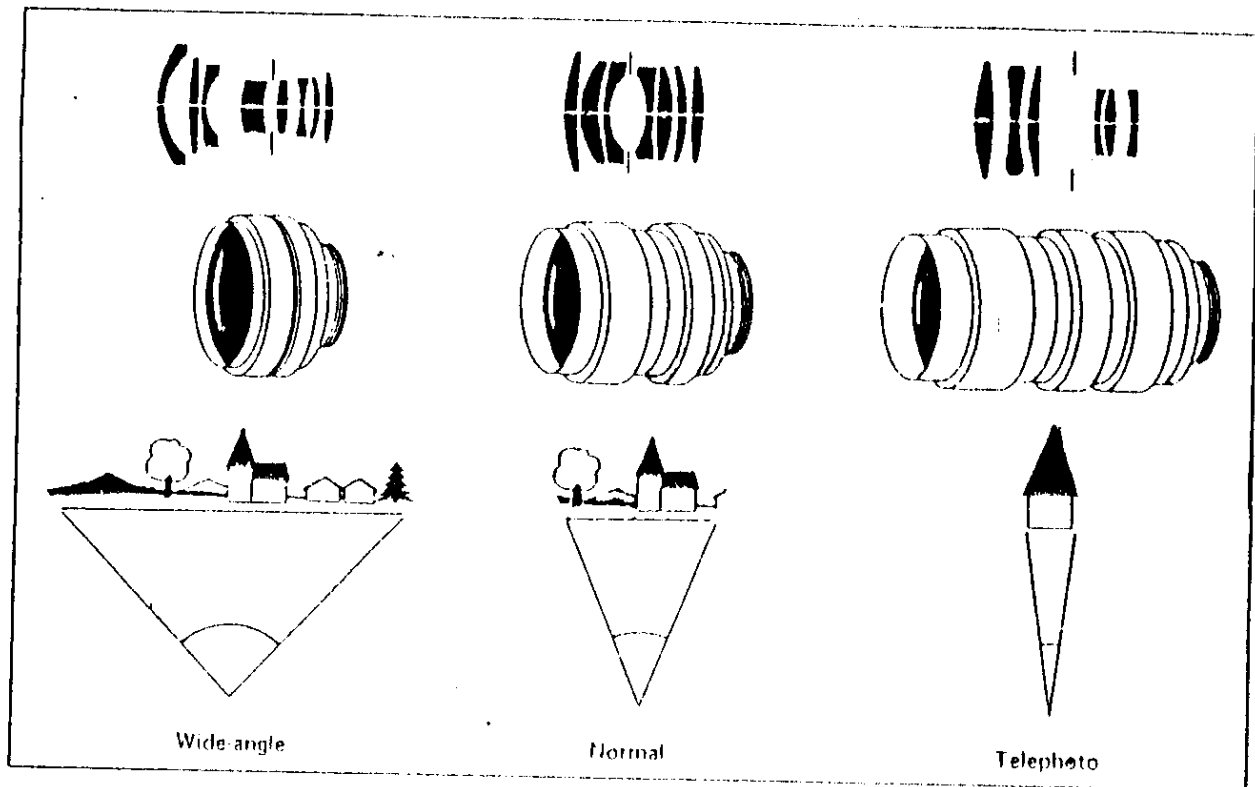
Zoom lenses have a variable focal length which permits a change of subject coverage without changing the camera position.

Many cameras accept interchangeable lenses by means of a screw or bayonet mount.

iii. Focussing

When you focus your camera, you adjust it for the proper camera-to subject distance. Methods used to focus the picture vary depending on the type of camera.

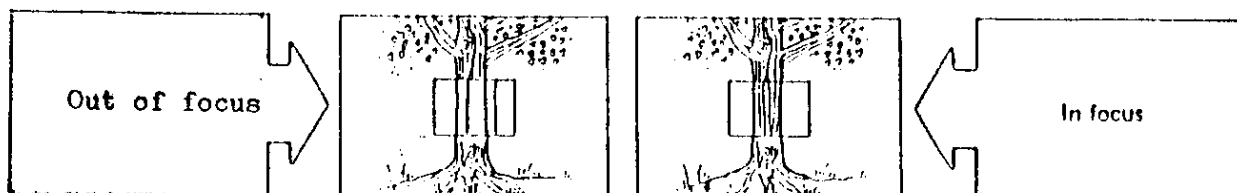
Although most simple cameras have fixed focus lenses, on some focussing can be adjusted by a control ring carrying either symbols or a distance scale in metres and /or feet.



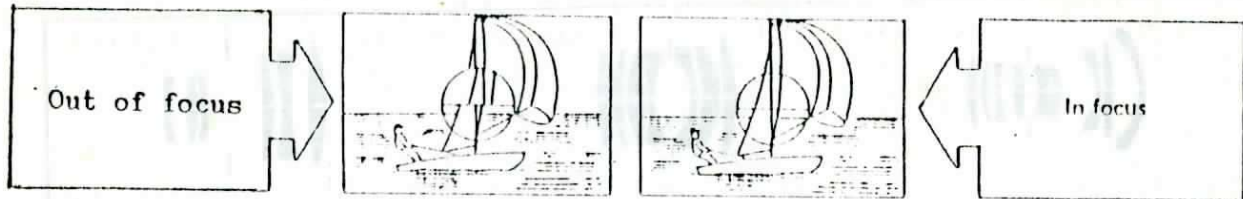
Various Types of Lenses

Some non-reflex cameras have a rangefinder coupled to the lens, which upon proper adjustment, sets the lens for the correct subject-to camera distance. The rangefinder may be either of two types:

- The coincident image rangefinder. The viewfinder shows two images of the subject. When the lens' focusing ring is turned, the two images are brought together until they coincide - then the subject is accurately focused.



- The split-image rangefinder. A small circle in the middle of the viewfinder is usually split horizontally across the middle and breaks the subject into two distinct halves. The lens focusing ring is turned until the two line up.



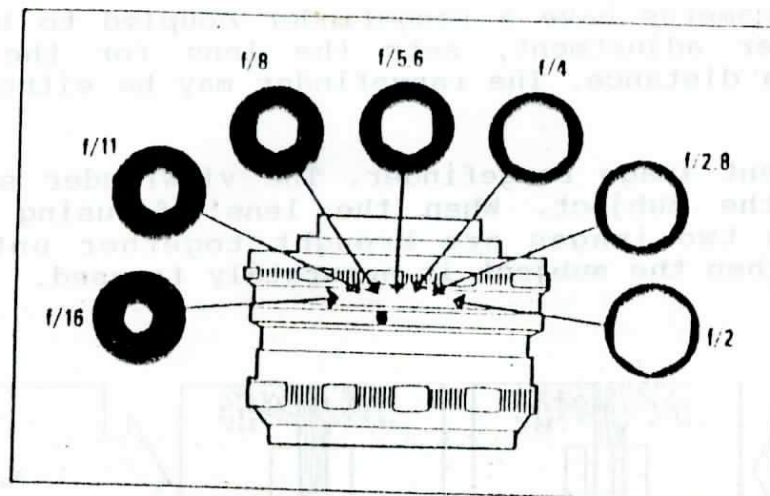
Single-lens reflex cameras allow focussing through the lens- the image is reflected upwards by a mirror onto a ground glass focusing screen. When the subject is out of focus, it simply appears blurred. The focussing ring is turned until the subject looks sharp in the viewfinder.

iv. Lens aperture (Diaphragm)

Light enters a camera by passing through the lens - the intensity of light entering is controlled by a lens aperture (diaphragm).

Although some simple cameras have a fixed lens aperture, others have an adjustable aperture controlled by a ring with weather symbols.

On adjustable cameras the size of the aperture is variable. The aperture control ring is calibrated in "f" numbers which indicate the size of the lens aperture in relation to its focal length. The smaller the "f" number the larger the aperture.



Range of Lens Apertures

The "f" numbers are determined by dividing the focal length of the lens by the diameter of the aperture.

Each number successively either halves or doubles image brightness.

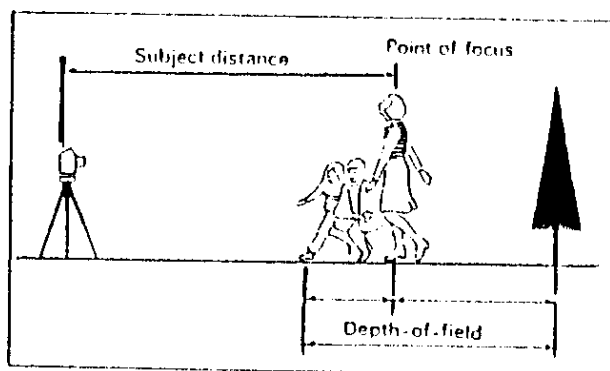
Lens apertures can also be used to control the amount of foreground and background that will appear sharp in the picture (depth-of-field).

v. Depth-of-field

Depth-of-field is concerned with the distance range between the nearest and furthest objects that appear in focus in a picture.

Depth-of-field depends on three factors - the size of the lens aperture, lens-to-subject distance, and focal length of the lens. Depth-of-field becomes greater as:

- the size of the lens aperture decreases;
- the subject distance increases:
- the focal length of the lens decreases (and the subject distance remains unchanged).

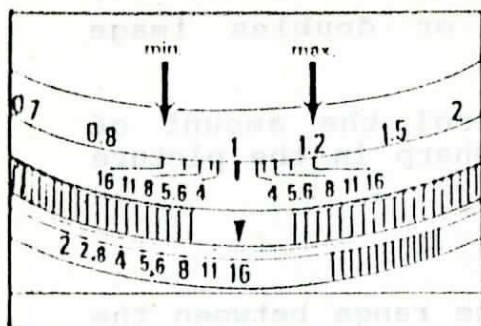


Depth of Field

You can work out depth-of field in one of two ways:

On single-lens reflex cameras there is usually depth-of-field preview button. When this is pressed, the diaphragm closes down to the pre-selected aperture to allow you to see in the viewfinder what is and what isn't in focus.

Many cameras have a depth-of-field scale engraved on the lens barrel. This scale shows aperture figures radiating to the left and right of the focusing index. Simply focus the lens on the subject, then looking at the distance figures opposite the aperture figures on the scale you will know the depth-of-field for each aperture setting.



Example:

The aperture is set at $f/16$ and the lens focused to 1 metre. From the depth-of-field scale we can see that, at $f/16$, the depth-of-field is from 0.9 to 1.2 metres.

Working Out of Depth of Field

vi. Shutter

The shutter controls the length of time that film is exposed to light. On simple cameras the shutter may have a single fixed speed. Adjustable cameras have a wide range of shutter speeds. These are shown as fractions of seconds, each setting successively either halves or doubles exposure time.

B	1	2	4	8	15	30	60	125	250	500	1000	2000
						(1/sec.)						

Some cameras have a B setting. At this setting the shutter stays open for as long as the shutter release is held down.

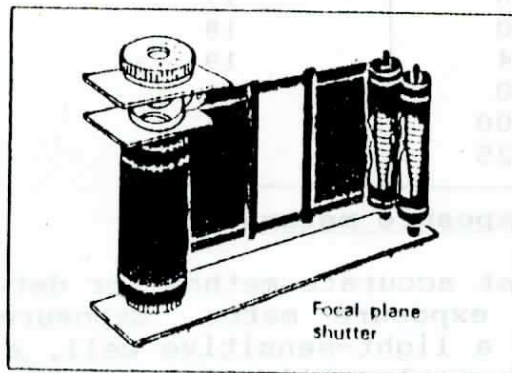
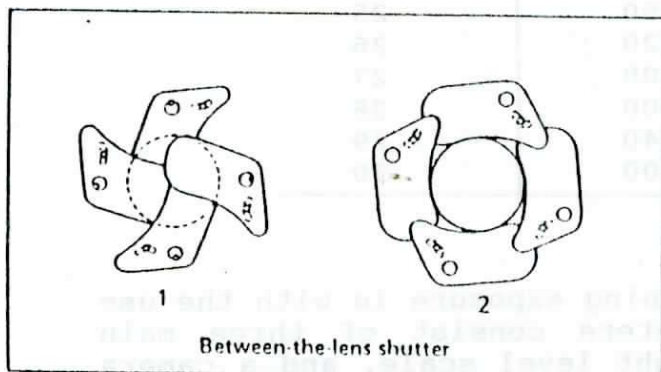
There are two types of shutter:

- The between-the-lens (or leaf) shutter consists of a set of overlapping blades which are opened and closed by a mechanism controlled by the shutter release.
- The focal plane shutter consist of two blind - one follows the other, forming a gap which, passing rapidly across the film makes the exposure. The width of the gap is controlled by the shutter speed dial.

Pressing the shutter release button fires the shutter and "takes the picture". Some cameras have a delayed action, or self-timer, mechanism which delays the shutter from firing for upto 10 seconds - useful for self portraits, or long exposures.

Aperture and shutter speed both affect exposure, but also have their own individual effect on the picture.

Shutter speeds control the way moving objects appear in the picture. The slower the shutter speed, the more blurred and undefined the image will become, while a fast shutter speed will "freeze" the moving subject and give overall definition to the image.



Slow shutter speeds may result in "fuzzy" pictures caused by inadvertent movement of the camera during exposure. For exposures of 1/30 second or longer, a tripod or some other firm support should be used to prevent camera shake.

vii. Exposure

The exposure of photographic materials involves a balance of time and intensity of light. This is expressed as a combination of an aperture and shutter speed. Since both the adjacent aperture settings and adjacent shutter speeds are in the 2-to-1 proportion, they may be used in various combinations to allow the same amount of light to reach the film. If the shutter speed is increased, the aperture must be opened by an equivalent amount, and vice-versa. In other words shutter speed and aperture are inversely proportional to each other.

$$f/8 \text{ at } 1/125'' = f/11 \text{ at } 1/60'' = f/16 \text{ at } 1/30''$$

viii. Film Speed

One of the most important factor involved in determining exposure is the speed of the film you are using. The film speed indicated a film's relative sensitivity to light, usually expressed in either ASA or DIN numbers.

With the ASA (American Standards Association) system, doubling of speed is shown by doubling of the number; the DIN (Deutsche Industrie Norm) system denotes doubling of speed by a rating increase of three.

To find the speed number of a film, look on the film pack or on the film data sheet. The film data sheet also suggest typical camera settings for a particular lighting situation. This information is a fairly good guide to exposure.

ASA	DIN	ASA	DIN
25	15	160	23
32	16	200	24
40	17	250	25
50	18	320	26
64	19	400	27
80	20	500	28
100	21	640	29
125	22	800	30

ix. Exposure meters

The most accurate method for determining exposure is with the use of an exposure meter. Exposure meters consist of three main parts: a light-sensitive cell, a light level scale, and a camera setting scale. All meters works on the basis of converting light into electrical current, which can be measured on a scale and translated into appropriate shutter speeds and lens apertures relative to the ASA/DIN speed of the film.

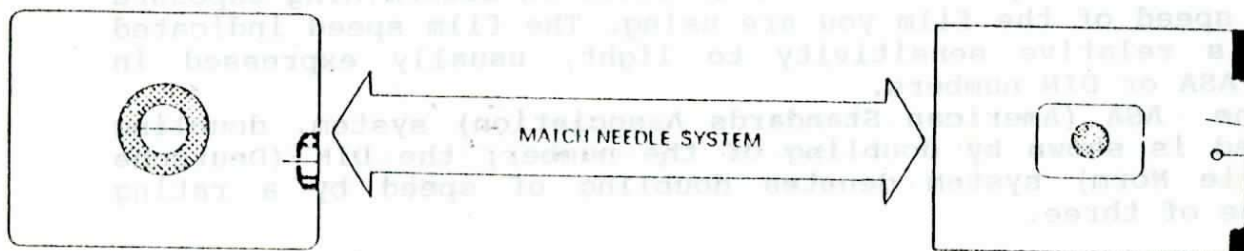
Built-in meters

Many cameras have built-in exposure meters. The simplest built-in meters have light reading cell around, or near, the camera lens and this is linked to the camera controls for either automatic or manually controlled exposures.

Most cameras with built-in metering have an ASA/DIN dial for setting the film speed. Once set, the meter will then give a reading with regard to the particular sensitivity of the film in use.

Manual exposure

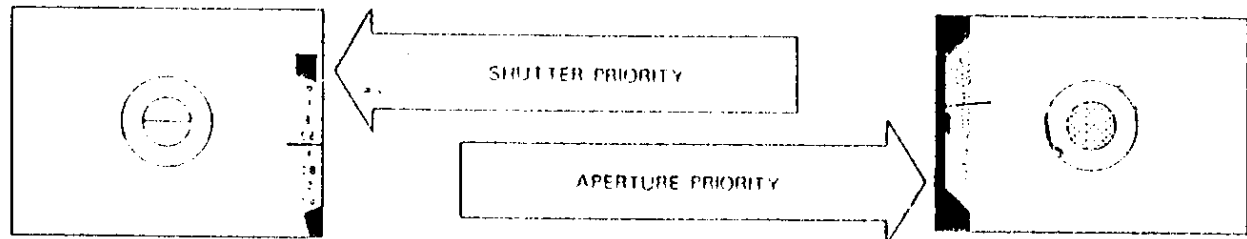
Exposure information can be supplied in different ways. Some cameras use the match-needle system. You set a shutter speed, then turn the aperture ring until a needle lines up with a certain marked spot within the viewfinder. When the two are aligned, you have correct exposure. Alternatively, you can set the aperture first, then turn the shutter dial until the needle lines up with the mark.



Automatic exposure

Automatic cameras fall into two basic categories

- shutter priority. The shutter speed is selected manually and the camera automatically selects the aperture for a correct exposure.
- aperture priority. The lens aperture is set manually and the camera selects the shutter speed automatically.



x. Other controls

Once the film is loaded into the camera it can be advanced by a lever (or knob) which is usually to the right of the camera's top plate. A nearby frame counter will indicate how many shots have been taken up to 36 frames. On cartridge cameras the frame number will appear in a window on the back of the camera.

Camera Care

The proper care and maintenance of photographic equipment are just as important as subject matter and correct exposure settings in striving for good photographic results. Cameras are fine precision instruments capable of providing years of reliable service without extensive maintenance.

However, there are some simple but essential things one can do to keep photographic equipment at top operating condition.

The instruction manual for your particular camera will give you more specific directions.

Camera body

Dust and dirt inside your camera can cause spots on your pictures and can jam the shutter mechanism as well. Use a blower brush to blow dirt from the inside of the camera.

Fragments of perforated film occasionally break off and fall between the lens and the film, sometimes ruining pictures.

Always inspect your camera before inserting a new roll of film. Be sure to clean in and around the film-spool cavities and sprockets.

There is less chance of dust and dirt on the outside of the camera body affecting the internal mechanisms, but it is a good idea to clean there also. Fine dust can work itself into the camera from the outside.

Camera lenses

To get the optimum sharpness from a lens, it must be clean. Dirt and fingerprints on the lens elements will produce hazy pictures. Don't touch the lens elements. Besides being difficult to remove the grease, a fingerprint can damage the lens coating.

The most common problem is dust. The best tools to remove dust are a blower brush or soft artists' brush (sable for example). A soft stroke of a brush will remove most of the grit of dust. If any marks still remain after brushing, a light wipe over with a clean, soft, lint-free material such as chamois or lens tissue should remove these. For stubborn stains moisten the lens tissue with a drop of clean water or special lens cleaner fluid, and wipe the lens.

Caution: Never use a treated cleaning material that you would normally use on eyeglasses for cleaning lenses on photographic equipment. The chemicals contained in these cleaning materials can remove the special coating on photographic lenses.

Clean both the front and back of the lens (if the back of the lens is accessible through the inside of the camera). On cameras with interchangeable lenses, remove the lens to clean both sides. Don't try to take apart the lens itself.

However, it's best to use preventive rather than remedial treatment. Fitting a skylight filter to the lens serves a dual purpose. Besides giving a "cleaner" looking picture, it is an excellent protector. It stops dust or grit getting on the lens element and if you have the misfortune to drop your lens or be hit by a flying object it's far better to replace an inexpensive filter than to replace a front element. Filters and viewfinder lenses can be treated and cleaned in the same way as described.

For final protection, always keep the lens cap on the lens when it is not being used.

For cleaning the body of the lens, a blower brush is best suited. This will get rid of any grit or dust which might find its way under the focusing ring and cause abrasion and damage.

Lubrication

As a rule of thumb, don't lubricate your camera. Most cameras are lubricated with a special "dry" lubricant by the manufacturer and usually need no further lubrication.

Lubrication on your equipment might collect dust, which can cause sluggish operation and possibly stoppage.

Batteries and electrical contacts

Many cameras need batteries - for built-in-flash, exposure meters, or electric motors. So it's quite important that you test your batteries and clean the battery and camera contacts periodically. Use the recommended batteries for your equipment. If your camera has a built-in tester for the batteries, you can easily check the condition of the batteries.

Batteries should be replaced periodically. The instruction manual for your camera will give you more specific instructions.

Batteries can produce substances that coat or corrode the contacts.

Alkaline batteries sometimes give off a gas that causes an insulating deposit to build up on equipment contacts and on the ends of the batteries. Since such deposits might not be visible, make sure they aren't present by periodically wiping the battery ends and camera contacts with a cloth dipped in clean water only. In fact, it's a good idea to clean new alkaline batteries before you install them, even though they're brand-new. Deposits can form during shipment and storage.

If the contacts in your equipment are difficult to reach with a cloth, clean them with a water-dampened cotton swab. Never use anything rough, like sandpaper, emery cloth, or a nail file, to clean the contacts. These will remove the plating on electrical contacts.

If your camera is likely to be idle for some time, remove the batteries to prevent corrosion damage. Storing batteries in a freezer will extend battery life. Be sure to wrap them in plastic to protect against moisture.

Sometimes the spring tension of the contacts might be too weak to provide good battery contact. If so, adjust the tension by bending the contacts slightly with a nail file or small screwdriver so that the batteries are held firmly in place. Recessed contacts can be lifted with a hook made from a paper clip.

FILM DEVELOPMENT

1. **Prepare the Developer in white light** : Decide which type of developer is to be used. When undecided, follow the recommendations of the film manufacturer.

It is recommended to use D-76 developer.
D-76 Developer - Dissolve the chemicals in the order given.
 1. Water (about 125°F) 750 cc
 2. Elon developing agent 2 gm
 3. Sodium sulfite dessiccated 100 gm
 4. Hydroquinone 5 gm
 5. Borax granular 2 gm
 6. Water to make 1 lit.
2. **Prepare the stop bath in white light** : Prepare the stop bath in accordance with the manufacturer's instructions.

Stop bath
 1. Water 500 cc
 2. Acetic acid 28% 250 gm
 3. Sodium sulfate dessiccated 45 gm
 4. Water to make 1 lit
3. **Prepare the fixing bath in whitelight** : Follow the manufacturer's instructions implicitly
Fixer
 1. Water 750 cc
 2. Sodium thiosulfate (hypo) 250 gm
 3. Potassium metabisulfite 20 gm
 4. Water to make 1 lit
Note: All the photographic chemicals are poisonous.
4. **Check the temperature of all solutions** : The normal temperature is 68°F
5. **Set the timer** : The time of development depends on the film type and the type of the developer. Consult the manufacturer's chart that accompanies the film and then determine the correct time of development in accordance with the temperature of the developer.

6. **Fill the film :** Make sure it is filled neither too high (or tank with else it will overflow when you immerse the developer film reel) nor too low (or else a strip along the top edge of the film will be incompletely developed).
7. **Arrange film, :** Arrange film, film reel, developing tank, film reel, and tank cover so that you can find them developing easily in the dark. Then turn off the tank & tank sefelight also.
cover
8. **Load the roll :** This must be done in total darkness. With film on the roll films it is best to unroll the film and spiral separate it completely from the backing paper before loading. Now load the film in the spiral.
9. **Place the :** Place the loaded spiral in the tank, and loaded spiral place the cover on the tank. Make sure the in the tank tank is light-tight. Now put on the light.

10. D-76

Development times in minutes	Film speed	Developer strength	18 ⁰ C 65 ⁰ F	20 ⁰ C 68 ⁰ F	22 ⁰ C 72 ⁰ F	24 ⁰ C 75 ⁰ F
400 ASA		Undiluted	10	8	6	5
		Diluted 1+1	13	11	9	8
125 ASA		Undiluted	7	6	5	4.5
		Diluted 1+1	10	8	6	5

11. **Start the timer** Adjust your timer according to chart and start the timer immediately.
12. **Agitate :**
 1. Correct agitation is a prerequisite for the production for evenly developed negatives of correct density. After the film has been in the developer for approximately half a minute, start agitation by holding the tank in both hands and moving it backward and forward while tilting and rotating it simultaneously. Continue for about five seconds. Repeat at half-minute intervals during the entire period of development. If you use a daylight-loading tank or a tank in which you can turn the reel by means of a rod inserted through the cover, slowly rotate the reel back and forth for the the first minute and thereafter for about five seconds every two minutes until development is completed.
 2. When the timer rings, without removing the cover of the tank, pour the developer

back into the bottle, and fill the tank with the stop bath.

3. Stop bath - Agitate for thirty seconds, then pour the stop bath out through the tank cover and discard it. It can be used only once. Pour in the fixing solution.

4. Fixing - Agitate at once for half a minute, repeat agitation several times during the next five to six minutes.

Now you can take the cover off the tank.

5. Washing - Remove the cover and fill the tank with water, rinse the film by dipping the reel up and down a few times, then pour out the water. Leaving the film on the spiral or reel in the open tank, wash for about 30 minutes under running water. Pull the film out of the spiral or reel, and hang it up to dry.

PRINT PROCESSING

1. Prepare the developer -

1. Water (about 125°F)	500 cc
2. Elon developing agent	3 gms.
3. Sodium Sulfite, dessicated	45 gms.
4. Hydroquinone	12 gms.
5. Sodium Carbonate, monohydrated	80 gms.
6. Potassium bromide	2 gms.
7. Water to make	1 lit.

Dissolve the chemicals in the order given. To use, mix one part of stock solution with two parts of water. Developing time at 68°F should be not less than one and not more than two minutes.

2. Prepare the Stop Bath -

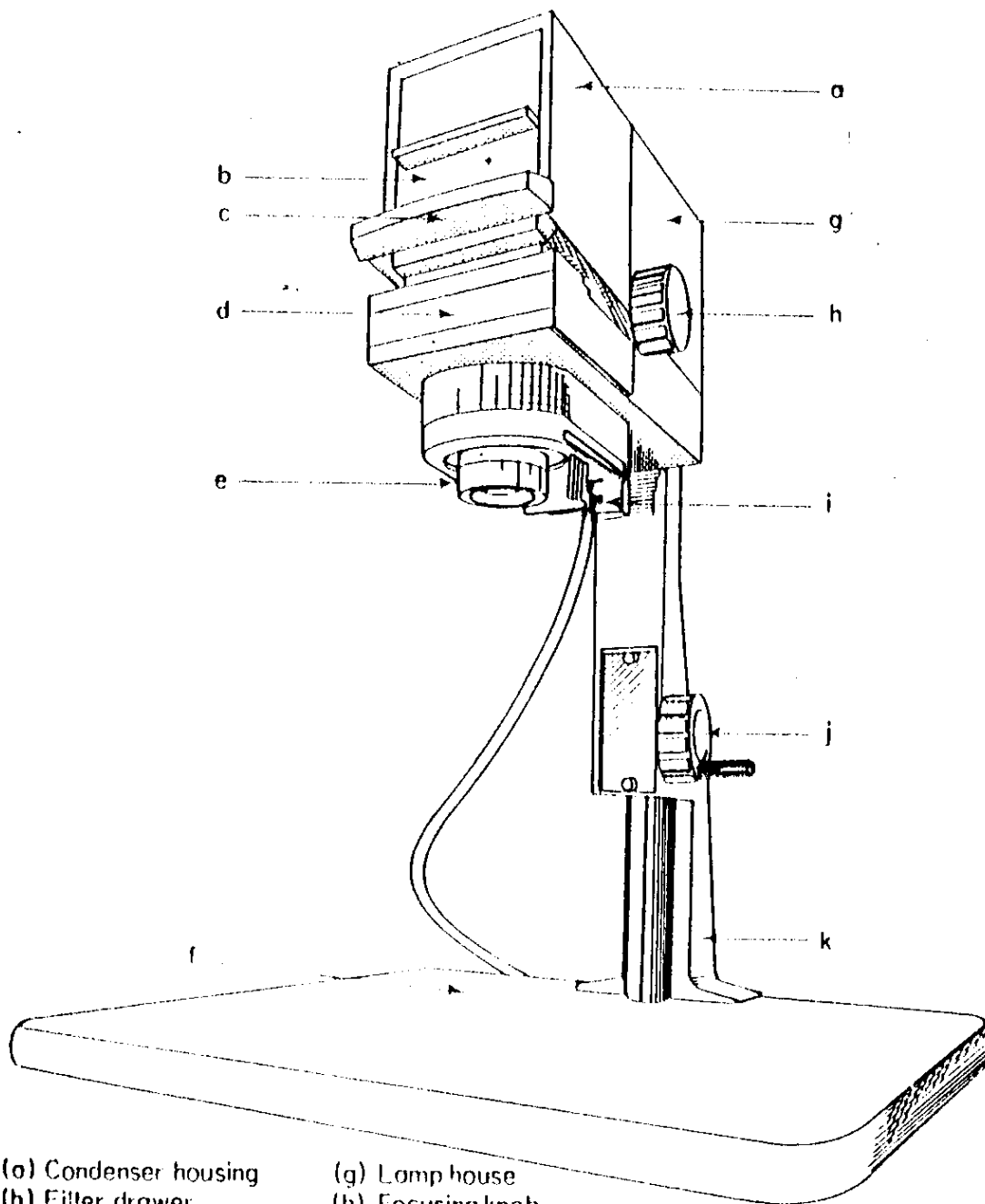
1. Water	1 lit.
2. Acetic acid, 28 percent	50 cc.

To make approximately 28 percent acetic acid from glacial acetic acid, dilute three parts of glacial acetic acid with eight parts of water. Treat the print for at least five seconds.

3. Prepare the Fixing Bath -

1. Water	750 cc.
2. Sodium thiosulfate (hypo)	250 gms.
3. Potassium metabisulfite	20 gms.
4. Water to make	1 lit.

Printing



- | | |
|-----------------------------|-----------------------------|
| (a) Condenser housing | (g) Lamp house |
| (b) Filter drawer | (h) Focusing knob |
| (c) Condenser lifting lever | (i) Lamp holder |
| (d) Negative carrier | (j) Height adjustment crank |
| (e) Lens | (k) Socket |
| (f) Baseboard | |

A TYPICAL ENLARGER

Fix prints for not less than five and not more than ten minutes.

This fixer is for general use with both films and papers.

How to make contact prints :

For making contact prints a printing frame is needed. Select a paper of suitable gradation for your negative from among the followings :-

1. Single weight 2. Double weight 3. Extra white glossy

Character of the negative	Extreme Contrast	Contrast	Normal	Soft
Recommended paper gradation (Contrast grade numbers in brackets)	Extra Soft (1)	Soft (2)	Normal (2 or 3)	Hard (4)

Now place the negative, emulsion (dull) side facing up in the Printing Frame, making sure that the glass of the frame is clean and free of dust. This work can be done by putting on amber safe light.

Open the paper package in such a way that it can be reused for wrapping unused paper, remove one sheet, and place printing paper emulsion (shining) side down on negative. Handle the paper by the edges only to avoid leaving indelible fingermarks. Close the printing frame. Do not forget to wrap unused paper securely before exposing the print; otherwise, it would be fogged and ruined by the white light.

Place the printing frame, glass side up, beneath the printing lamp, and expose the paper in white light. Duration of the exposure depends on the density of the negative, the speed of the paper, the lamp, and the distance between lamp and printing frame.

How to make an Enlargement :

Enlargement or blowup is made with the aid of an enlarger by following the steps mentioned below :-

i) First clean the negative and then place the negative in the negative carrier of the enlarger, emulsion (dull) side down, facing the lens.

ii) Switch on the enlarger lamp, fully open the lens aperture and raise or lower the enlarger head on the column to bring the projected negative or the part of it you want to the required size on the masking frame (easel).

iii) Adjust the focus, by enlarger focussing knob.

iv) Turn enlarger lamp off. To make a test strip, cut a sheet of enlarging paper of suitable gradation into a number of pieces approximately four inches long and two inches wide. Place one of these strips (emulsion side up) on the easel in such a way that it includes both light and dark picture areas, such as high light and shadows, foreground and background or earth and sky. Expose the test strains by switching the enlarger lamp on. Find the correct exposure by stopped exposure series on these test strips by developing them in the developer from one to two minutes. The test should then include a correctly exposed strip to indicate the required exposure time.

v) Switch off the enlarger lamp and place the enlarging paper on the easel, and make the exposure in accordance with the time determined with the aid of the test strip. Stand motionless while you count off seconds or watch the timer, and touch neither the enlarger nor the bench or table on which it stands. Even the slightest vibration is sufficient to cause of slight degree of blur in the print. Do the necessary dodging; burn in parts that are too dense, hold back areas that are too thin.

Developing :- (By amber safelight)

Take the exposed paper and smoothly slide it edgewise into the developer, emulsion side up. Be careful not to get your hand wet. Use the print tongs to dunk and manipulate the paper. Agitate paper by gently rocking the tray for the entire duration of the development. Leave the print in the developer for not less than one and not more than two minutes. If by that time the picture is already too dark, the exposure was too long; if it is still too light, the exposure was too short.

Acid stop bath :- (By amber safelight)

Using the print tongs, take the print or enlargement out of the developer, and agitate the print in the Stop Bath five to ten seconds. Using fixer print tongs; then transfer print to fixer.

Fixing :- (By amber safelight)

Leave the print or enlargement in the fixing bath for five to ten minutes. Agitate repeatedly by using fixer print tongs. Now put on the ordinary white light.

Washing :- (By ordinary white light)

Wash single-weight prints or enlargements for about ten minutes and double weight prints for about half an hour under running water at 56° - 75°F.

Drying : (By white light)

Remove the washed prints or enlargements from the water, let them drain briefly and wipe off excess water and place the prints on a clean towel, leaving it to dry overnight. For glossy prints dry the paper in the Glazer, which is also suitable for rapid drying

(about ten minutes). For matte and semi-matte i.e. double weight prints/enlargements dry the paper in a photo blotter roll.

Trimming :- To trim prints, use a paper trimmer (Cutting Board).

Mounting :- Select the tone, colour and texture of the mounting board and paste the print on it.

PLANNING & PREPARATION OF NON-PROJECTED VISUAL AIDS

Although there are several non-projected visual aids, we will deal in the present section the techniques of planning and presentation of some such inexpensive and practically utilizable aids by the trainers themselves.

1. CHALKBOARD (Blackboard):

The chalkboard or blackboard is perhaps the most common and effective visual aid when used properly. It is also inexpensive and requires only a minimum of maintenance and care. It can be used as supplementary to other forms of aids.

When using a chalkboard, ensure that it is really clean before you start and that there is enough light falling on the board to enable it to be seen by everyone in the audience. A board measuring 120x180 cms (4'x6') will give a good working area and two boards of this size may be used with advantage. It must be remembered that following good techniques and little bit of planning this traditional aid can also be used very effectively in communicating ideas.

It is always better to plan chalkboard work and to note down exactly what is needed on the board. This is necessary because the work must be presented into logical order for the easy understandability of the material. All drawings and illustrations should be clearly legible from the furthest corner of the room. To be easily readable chalkboard writing should be between 5 to 6 cm (2 to 2.5") in height. Slanting writing is

difficult to read and writing which starts high on one side of the board and slopes down at the other is irritating to the observer. Moving across the board when writing helps to eliminate this error.

Use of colour : Coloured chalks can be very effectively used to highlight some of the points, in differentiating one item from the other and also in presenting diagrams. Coloured chalks vary in quality and colour density; pale colours are more effective than deep ones and some colours are easier to see than others, especially against a matte background.

White Yellow : Good contrast with green and black background

Red, Lightblue, : Valuable for adding interest to a board; for
Green adding colour to drawings or for underlining
key words.

Brown, Purple : Not so effective; some times very difficult to
Darkblue see.

An olive green chalkboard surface is restful to the eye and yellow chalk gives a good level of contrast against this surface colour.

Presentation - One of the problems associated with fixed chalkboard is that the materials cannot be prepared in advance and concealed. There are however several ways of overcoming this difficulty.

(1) A lightweight black curtain may be suspended from a wire and arranged to fall directly across the front of the chalkboard. The curtain can be drawn back stage by stage to reveal material already prepared. Thus the interest of the audience can be held in the subject matter.

(2) Sometimes it is useful to write pencil notes on board at eye level, so that they can be seen only by the user and may be prepared before the formal talk begins. They may be taken up step by step at the time of presentation. Thus it acts as an aid

to the memory and save constant reference to prepared notes by the speaker.

(3) The 'dot - dusting' technique is very useful and effective and requires only a little time and no expense. It is particularly useful if the same basic material has to be repeatedly presented. It can save hours of preparation and can give a really spontaneous look to the chalkboard work.

2. FLANNELGRAPH

The flannelgraph is one of the most adaptable and flexible teaching aid. The materials can be presented to the audience in a step by step manner with the help of separate pictures which ultimately lead towards building up of a composite story. Drawing, titles, illustrations and headings may be added at will and associations clearly demonstrated. Materials can be rearranged developed and simplified as per convenience.

Pictures, illustration, captions and other symbols prepared on light cards or stiff papers, backed with felt or sand paper are usually placed on a board covered with rough textured cloth or flannel cloth. The two rough surfaces interlock on contact and a light temporary adhesion takes place,. If the flannel board is lightly brushed before use, then such adhesion is improved.

Flannelboards may be quickly improvised by stretching a flannel cloth over a portable chalkboard (90x120 cms or 3x4 feet) and securing it with large spring clips. A permanent board may be made by lightly gluing cloth to a card board or a plywood surface. While applying glue, care must be taken so that it should not be permitted to penetrate the cloth or it will spoil the working surface and the adhesive quality of the board will be impaired. Flannel boards can be more efficiently used if they

are set at a slight angle to the vertical.* The colour of the flannel cloth should be such so as to give a good contrast with the flannel graphs placed upon it. Black, drak blue, dark green or gray may be selected as colour of the cloth.

Preparation :- In Order to prepare the flannel graphs the different techniques of drawings stated earlier, maintaining regular paper clippings of different kinds of pictures from newspapers and magazines provide a good source of material from which you can select your pictures. With all these, you can prepare your own material even if you are lacking in artistic skill. A picture may be projected on to a piece of stiff paper with the help of epidiascope and then it can be copied. The following process has been found to be quite effective :

1. Draw a light out line of the projected material using a soft pencil and light pressure.
2. Switch off the projector and in daylight condition draw a bold outline following the pencil line using a felt tipped pen or black crayon.
3. Add colour very lightly.
4. Cutout the different parts/pictures in varying shapes.
5. Paste pieces of sand paper or felt paper on the back of each of them.
6. Allot serial numbers on the back of these cutout parts/pictures as per their sequence of presentation.

Presentation :

1. Rehearse presentation and arrange different parts as per the sequence.
2. Before presenting the lecture with the help of flannelgraphs, ensure that the audience can see them.
3. Stand to one side of the board when talking and placing pictures on the flannelboard. While

presenting flannelgraphs hold them in such a manner that they are concealed in your hand so that the pictures are not seen before presentation.

4. Donot clutter up flannelgraph with too many parts so as to create confusion.
5. Repeat presentation if necessary.
6. Call for questions and clarify confusions.

Flannelgraph has its limitations. Apart from the flair and aptitude on the part of the trainer needed in presentation, it is often difficult to use them at outdoor meetings where a breeze may blow away the parts/pictures from the flannelboard. In such situations, however, a magnetic board may conveniently be used instead of flannelboard. It possesses all the flexibility of the flannelgraph, and even moderate gusts of wind cannot move the part kept in place by magnetic attraction. The working surface of the magnetic board is usually coated with chalkboard paint which not only gives it the matt background, but also facilitates the use of both chalk & magnetic symbols on the same surface. The same parts of the flannelgraph pasted with magnetic tape instead of sand paper or felt paper may be used on the magnetic board.

3. FLASH CARDS

In order to emphasize important points in a talk or lecture, flashcards can be quite effectively utilised. These are simple illustrations on cards which should be large enough so that everyone in the audience can see them clearly. For the average group of people(25 to 30), the size of the cards should be 1.5 x 2 feet.

Preparation :

For preparing flashcards, a story has to be built up and the visual layout may be made by following story-board technique. After finalisation of the story-boards you should look for pictures and illustrations from available magazines. For this purpose the maintenance of regular paper clippings as suggested under flannelgraph will be useful. The pictures thus collected may be reproduced in required size on hard sheets of paper by following the same techniques of drawing utilised in preparing flannelgraphs. Add colours to the pictures and mark them with serial number as per the sequence of the presentation.

Presentation : As with other visuals, the presentation should be very carefully planned and rehearsed. The cards should be arranged as per sequence and displayed one after another with relevant verbal commentary. After the presentation is over, questions may be invited from the audience and discussed.

4. FLIP BOOKS

Many trainers find a flipbook easier to use than flannelgraph or flashcards, as visual aid. A flipbook can be used to present a series of pictures which help to develop the lesson in a clearly understandable fashion, step by step as a sequence, or presented as a story.

Preparation : Flipbook can be prepared with paper pages fastened between two hard covers. Before finalizing the pictures, the rough layout is to be prepared following the story board

technique as utilised in flashcards. The posters, wallcharts and illustrated literature are good sources of illustrations for cuttingout and pasting onto the flipbook pages. In drawing as well as making the letterings, care must be taken to make it legible from a distance.

Presentation : The pages fastened between the covers should be turned over one by one and relevant points related to each page be narrated. The points relating each step in the development of the picture can be written or printed boldly on the reverse side of the page immediately preceding that exposed to the audience. Thus the flipbook not only serves as a visual aid but also helps in the memorisation of the teaching outline for the speaker.

PLANNING & PREPARATION OF PROJECTED VISUAL AIDS

1. SLIDES

Slides are photographs taken on positive films so that after processing, they can be placed in a projector and shown on a wall or screen to a group of people. They are particularly useful for compressing a lengthy sequence of events into a convenient teaching time. The main steps of any action programme taking long time from launching to its completion in the field can be compressed into a thirty to forty minute slide show. In this way the results of the programme can be carried to many more people who were not associated with the actual action. Apart from this, the slides may be conveniently used to demonstrate some off season farming techniques or some phenomena which are difficult to be observed by naked eyes. Thus the microscopic views of some causal organisms of diseases and pests of crops plant can be shown through slides. In this way the slides can highlight on the salient features of any topic.

Preparation :

If you have got a camera and are interested in photography, it is not at all difficult for you to produce slides with local appeal for using them as communication media. The usual sizes of photographic slides are 2" x 2". Normally they are made up of 35mm films available in two forms. They are : coloured and black and white. The coloured slides though costly, are very effective in its actual form and colour. Thus through coloured slides, you can show your extension worker participants or even the

farmers in its actual form how the lesions of Brown Spot appears on the leaf of a paddy plant or what is the symptoms of Red Rot of sugarcane.

For the preparation of coloured slides, you can purchase from the local market any good type of coloured slide film and expose them by following the techniques of photography stated earlier. In order to process such films, you have to depend upon the professional coloured photo laboratories. After exposing the film send to the company through your dealer and after sometime you will get the processed and mounted slides.

The black and white slides are suitable for projecting any written material or charts and graphs. For preparing such slides the reversal films are useful. The negative films may also be used if the change of direction of the elements in the picture donot affect the meaning . The developing of the film is to be done in the same way as mentioned earlier in the chapter on photography. For copying of written or graphic materials, the artwork is to be prepared following the requisite proportion, i.e. 2:3. Copying of such materials should preferably be done with the help of copy stand. Wall chart and flannelgraph presentations may also be good materials for making slides.

Guidelines to the Preparation of a Slide - Tape Programme

Slides can be more effectively used in combination of a recorded commentary with the help of tape recorder. The combined impact of the visual stimulus together with the audio stimulus make slide-tape a very forceful medium. The visuals and the

soundtrack together perform a much more efficient communication function than either can perform alone. It is the combination of the two channels, where one reinforces the other which is one of the great strengths of any slide-tape presentation. This is the all important guideline towards the production of a successful programme.

These remarks may seem obvious, but all too frequently we see programmes that completely ignore this important characteristic. In the extreme, the finished product is either a series of 'pretty' pictures to which the sound-track adds very little, and can indeed intrude aggressively, or the programme becomes a talk to which the visuals have only vague relevance.

Usually an unsuccessful slide-tape presentation is the result of inappropriate initial planning. On some occasions, the enthusiastic photographer shoots a series of pictures 'off the cuff' and then a soundtrack is prepared around the pictures. This is the lesser of the two evils. Worse, and more common, is the enthusiast who writes a wordy script thinking purely in terms of the story he wants to tell and then calls upon the photographer to fit pictures to his words. He has forgotten that a large part of his story will be told in pictures; so the outcome is frustration and eventually a complete rewrite of the script.

Practical approach

The most practical approach is to use the storyboard technique which encourages us to think in terms of both visual and sound

together. This is simply a series of thumbnail sketches of the pictures with a brief caption written underneath as a guide to the content of the soundtrack. Something on the lines of a strip cartoon except that you don't need to be a skilled artist. Simple pin figures or even a written description of the visual will suffice. The purpose of the storyboard is to help us get away from our normal habit of thinking in words and instead to think in terms of pictures. The storyboard emphasises that the picture makes the initial statement and then the soundtrack makes that statement more specific. Planning a programme by this method is the one sure way of determining close harmony between the audio and visual channels.

Slide-tape is such a flexible medium that it can be successfully applied to a wide range of programmes from pure entertainment to those concerned with instruction or motivation and in every case the following basic plan of campaign can be followed step by step.

Step 1 : TREATMENT

Outline the theme and content of the programme very briefly. Be certain that slide-tape is the appropriate medium, for the subject and determine the eventual form of presentation.

Step 2 : STORYBOARD

Translate the outline into visual terms with simple thumbnail sketches and concise written notes as outlined above.

Not until these two planning steps have been completed should the next three practical steps be taken.

Step 3: GATHERING PICTURES

The storyboard is sufficiently detailed to guide the cameraman in specific viewpoints, type of shot, the style of photography, etc.

Step 4 : GATHERING SOUND EFFECTS

The sound effects may be natural sounds taken on location or 'stock' sounds from records but don't overdo them. Differentiate between general background sounds and particular sounds.

Step 5 : SELECTION OF MUSIC

Important in creating the right atmosphere. Avoid very familiar music especially as a background to a commentary.

It is assumed that any graphic material and title slides have been completed during these three practical steps.

Step 6: WRITING THE SCRIPT

Assuming the storyboard has been carefully planned and the visuals faithfully reflect the storyboard then the final script will be very straightforward.

Where a commentary is involved avoid overloading it. A rule of thumb is not more than 20 to 30 words per slide or, looking at it another way, slides should not normally be held on the screen for longer than ten to 15 seconds.

Step 7 : MAKING THE SOUNDTRACK

An open reel tape recorder offers more facilities to make a quality master tape. Copies can then be made on cassettes if required.

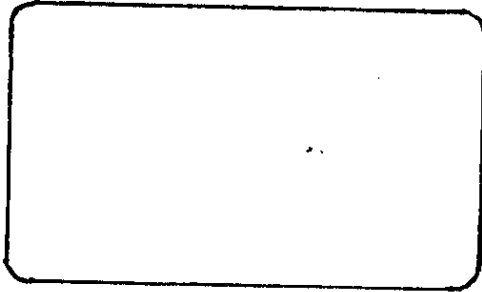
Step 8 : SYNCHRONISATION

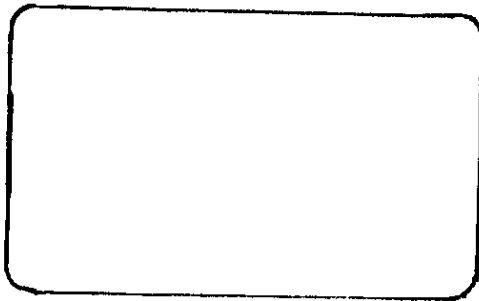
May be cue marks on script, audible bleeps, spoken instructions or automatic slide changing depending on facilities and type of programme.

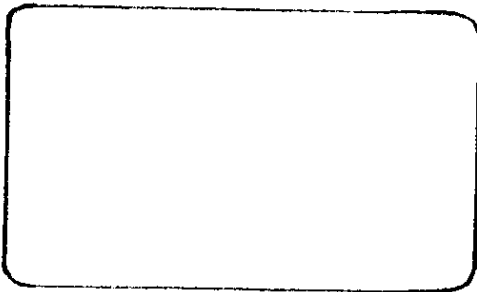
Presentation :-

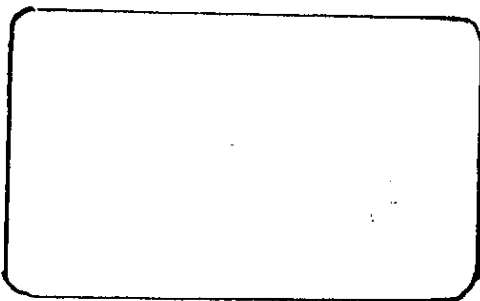
For projecting the slides, the help of slide projector is necessary. Although there are different kinds of slide projectors available, the most commonly used slide projectors are electrically operated. There are however light, easily

STORY BOARD FORMAT









transportable projectors which you can use in villages (where electricity is not available) with the help of Battery of your jeep. The electric slide projectors may be either manual or automatic. Whatever may be the kind of projector, follow the basic steps in presenting a slide programme.

1. Before giving a slide show, test and check the projector and ensure that there is a spare lamp.
2. Limit the show to thirty to fifty slides.
3. Whenever possible include pictures of local interest.
4. Arrange slides in correct order keeping the indicator on the top right hand corner facing you.
5. If you are not using slide programme synchronized with recorded commentary, prepare a list of the slides and teaching notes or outline on which the commentary will be based.
6. Rehearse the presentation before the audience arrives.
7. Set up the projector and screen in advance and arrange the seat so that everyone in the room will be able to have a clear view of the screen.
8. Introduce briefly your topic and prepare the audience.
9. Keep each slide on the screen long enough so that the message is fully understood by the audience.
10. Invite questions and if necessary show again those slides which are the subject of the questions.
11. Distribute related literature on the subject after the show. If a projector is not available you can use battery operated or a daylight type handviewer for showing slides to individuals of a small group. Both these types of viewers are in-expensive.

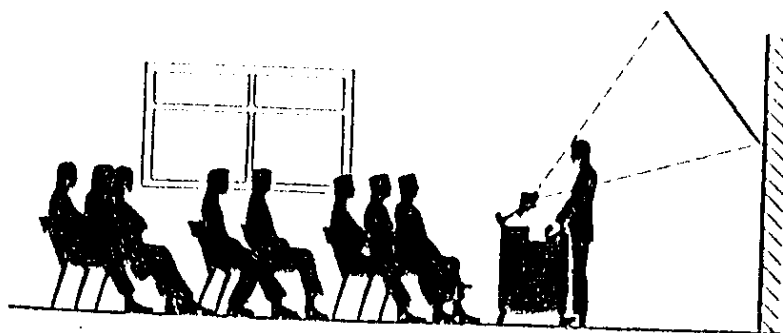
2. FILMSTRIPS

Sometimes filmstrips are used in place of slides. Although they may be utilised in the same way as slides but the disadvantage is that the sequence of pictures in the filmstrip

cannot be changed as per convenience of the speaker. A filmstrip attachment to the slide projector is necessary in order to show filmstrips. The techniques of preparation and use are however the same as used in case of slides.

3. OVERHEAD TRANSPARENCIES

Overhead transparency is one of the projected visual materials which can be very effective in different levels of education and training. This can be conveniently produced by hand, using transparent acetate sheets, coloured inks, coloured adhesive film and felt tipped pens suitable for work on glass or plastic surfaces. In order to project this kind of material over short distance the help of overhead projector is essential to give an enlarged image. Unlike other projectors, the overhead projector is designed in such a way that it can be operated by the speaker facing the audience under normal daylight condition.

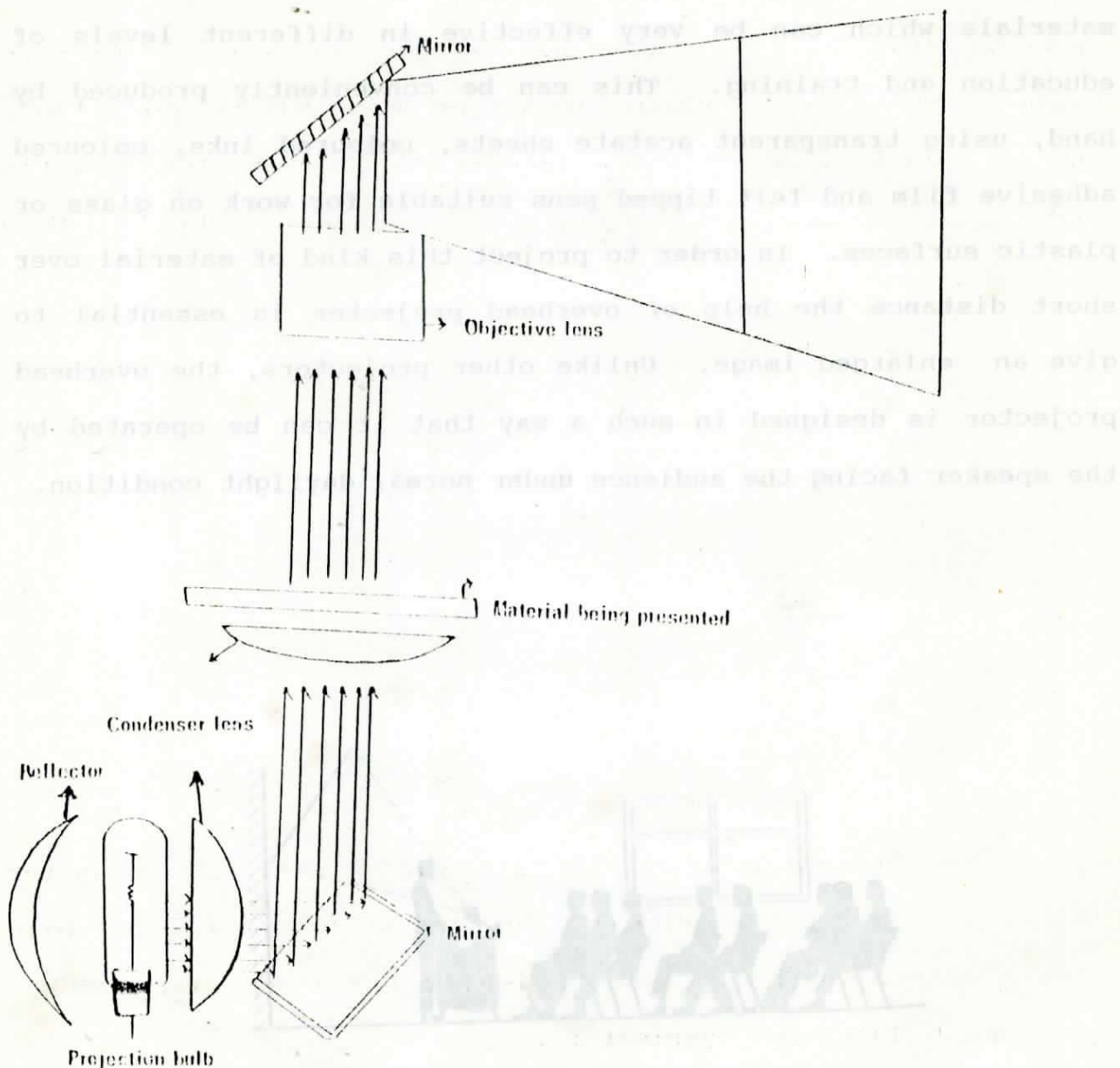


Overhead Projection

1. Uses of the overhead projector

Ingenuity, and imagination will show many instructional uses for the OHP, the most common of which are referred to below :

- a. as an alternative to the chalkboard : writing or drawing on to acetate sheets or scroll, using suitable pens, directly upon the projector work surface as the lecture proceeds;
- b. for the presentation of prepared transparencies;

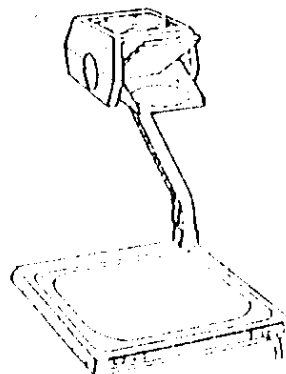
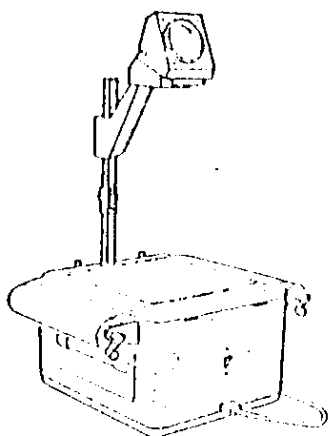


Indirect Projection (Overhead Projector)

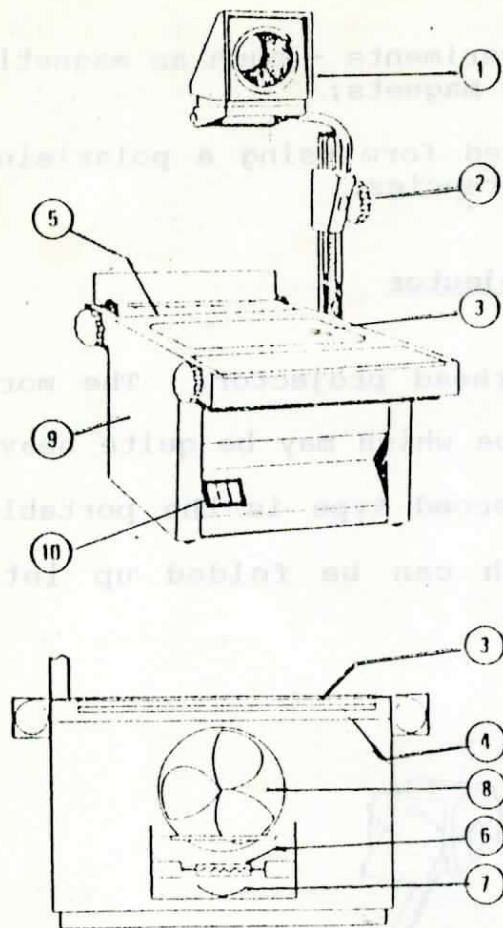
- c. for showing silhouettes of cut-out shapes or opaque objects ;
- d. for using models, both static and moving, made from perspex or other materials;
- e. for physical demonstrations and experiments - such as magnetic lines of force, using iron filings and magnets;
- f. for presenting diagrams in animated form using a polarising filter with specially prepared transparencies.

2. Different parts of the overhead projector

There are basically two types of overhead projector. The more usual is the standard lecture hall type which may be quite heavy and not easily transportable. The second type is the portable projector, lighter in weight, which can be folded up into briefcase form.



Many models are available on the commercial market. Although the design and facilities offered by different manufacturers while most overhead projects have basically the same, main parts. These are illustrated overleaf : .



1. Projection head : assembly containing the objective lens and mirror to direct the projection beam towards the screen.

2. Focus control : the image is focused by raising or lowering the projection head.

3. Projection stage : working area where transparencies are placed for projection.

4. Fresnel lens : special type of condenser lens used to change the divergent beam of light from the lamp into a convergent beam.

5. Scroll : long roll of transparent film base material.

6. Projection lamp.

7. Reflector.

8. Cooling fan.

9. Housing.

10. Switches : to control cooling fan motor and lamp.

3. Maintenance

The overhead projector is very simple to maintain. The only maintenance operations are the replacement of burnt-out lamp, and the cleaning of operating surfaces. Although all modern projectors conform to safety standards, it is advisable to disconnect the power supply before commencing maintenance operations.

Care should be exercised while fitting a new lamp. A quartz-iodine lamp should never be held in bare hands as this can considerably shorten the life of the lamp. It is advisable to hold the lamp between layers of dry tissue when fixing it into the socket.

The projection stage and lens should be kept clean at all times. Use a damp cloth to thoroughly clean the surfaces and wipe them dry afterwards with a soft duster.

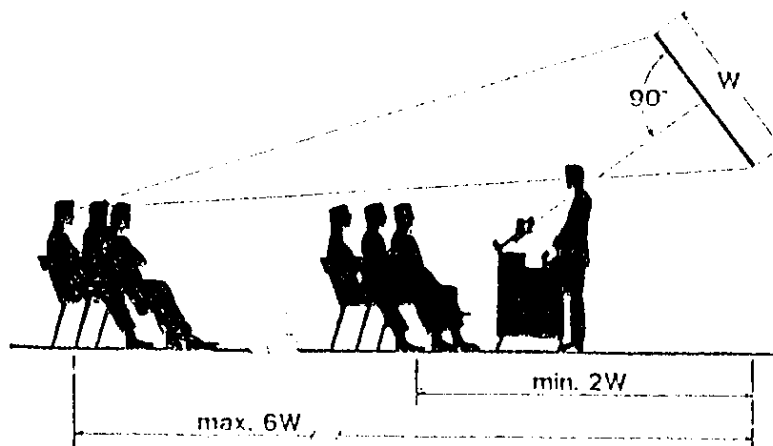
4. Setting up the projector and screen

The method of setting up of the projector and screen upon depends on the type of room, size of audience, lecture style etc. The simple rules for placement of OHP and screen are based on two considerations :

- an unobstructed view of the screen for the audience ;
- convenience and comfort for the lecturer.

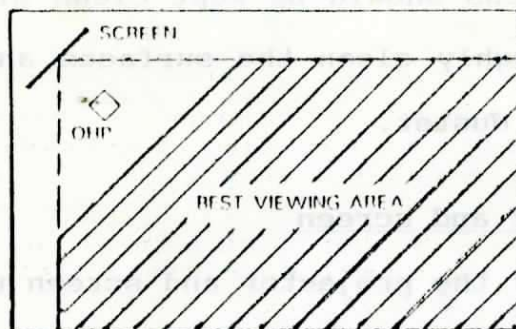
The best type of screen for OHP work is one with a matt, white surface. This offers the best viewing area.

The size of the screen is determined by the maximum viewing distance. The width of the screen should be not less than one-sixth of the distance from the screen to the furthest viewer. The projector to screen location should be adjusted to fill the screen with the projected image.



The screen must be raised to permit viewing over the head of the lecturer, and be tilted slightly forward so that it meets the projected beam at right angles. This will avoid the distortion which is known as the Keystone effect.

The best position for the projector and screen is often towards the corner of the room. This tends to spread the best viewing area over a greater proportion of the class.



Although the overhead projector is a daylight projector, the picture is adversely affected if strong light falls directly on to the screen.

5. Presentation techniques

The overhead projector can be used in a seated or standing position. The visuals can be quickly registered into position and there is easy access to the projector controls. White standing, care must be taken not to obscure the screen.

Using a pen or pencil as a pointer is very effective in drawing attention to major points of a message. Simply point at the item on the projector stage and the pointer's shadow focuses attention on the same detail on the screen.

Switching on and off helps to emphasize points as well as direct the audience's attention from the screen to the speaker.

Adding information to prepared visuals helps underline important points during the presentation.

Complex topics can be developed in stages using the overlay or revelation techniques.

PREPARING OVERHEAD PROJECTOR TRANSPARENCIES

Many processes have been developed for preparing overhead projector transparencies. They range from straight forward hand

lettering or drawing to methods requiring special equipment and skill.

1. Materials required

Because of their physical characteristics and use, transparencies demand specific types of materials. Listed here are some of the materials designed to meet the particular requirements of overhead projection.

a. Clear acetate : An excellent transparent drawing surface that will accept certain pens and markers, available in varying thicknesses and sizes, in rolls and sheets.

b. Felt/Fiber-tip pens and markers: Designed to produce vivid transparent colour lines. Three line widths - fine, medium and broad - and assorted Colour available.

There are two types of such pens

- soluble (water based) - writing is easily erased with a damp cloth;

- permanent (spirit based) - removable with white spirit.

c. Dry transfer lettering: Opaque or transparent coloured instant lettering in assorted typefaces and Colour. Give a professional finish to transparencies. Range of symbols also available.

d. Adhesive colour film : Full range of self-adhesive films in projectable colours. Suitable for large colour areas.

e. Transparent tapes : Adhesive tapes in projectable colours available in various colours and widths. Ideal for charts and diagrams.

f. Transparency mounts : Cardboard frames add durability and ease to the handling and storage of transparencies.

2. Preparation of hand-drawn transparencies

The preparation can be divided into three stages :

- the master drawing
- tracing the drawing onto the acetate
- mounting the finished transparency.

a. The master drawing : Layout and lettering may present some difficulty, and it is advisable to try out several possible ideas before settling on one. The drawing should show everything that is required on the final transparency.

Any type of paper may be used but grid sheets or graph papers are useful as guides for drawing and lettering .

The drawing must be laid out to use the image area of the transparency mount (20 x 24 cm). A safe margin should be left around the edges to avoid losing that part of the image.

All lettering should be shown in the master drawing whether it is to be done freehand or with transfer lettering on the acetate. This is to make certain that spelling is correct and that the word or words fit into the space intended.

b. Tracing the drawing onto the acetate :

A sheet of acetate should be placed over the master drawing and both sheets fastened to the working surface to prevent movement.

The drawing is traced onto the acetate with the felt tipped pens. Markings take some time to dry and care must be taken to avoid smudging the tracing . It is advisable to keep a sheet of paper under the hand when working to prevent grease getting onto the acetate.

When the tracing is dry, areas of colour may be added by applying adhesive colour films and tapes.

c. Mounting the transparency : Single-sheet transparencies may be projected unmounted if the acetate is thick enough to lie flat on the stage of the overhead projector. However, a transparency mount provides a solid basis for easy handling and storage, and provides a convenient border for writing lecture notes. The completed transparency can be fastened to the mount with adhesive tape.

3. The use of overlays

Overlays can help simplify complicated concepts and allow you to build up your presentation step by step.

The preparation of overlays is divided into two stages :

- preparation of the master drawing;
- tracing and mounting the transparencies.

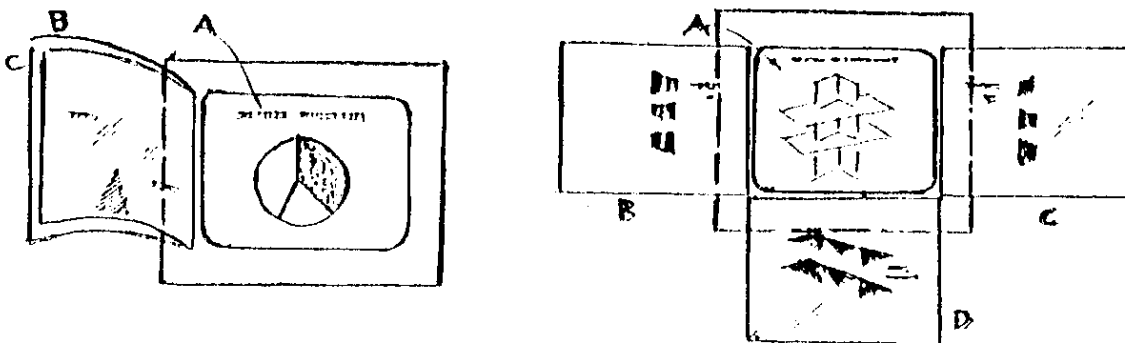
a. The master drawing : the master drawing should show everything that will appear on the transparency with all the overlays in position. The technique of the drawing has already been described in the previous paragraph 2a.

b. Tracing and mounting the transparencies

The base transparency : the base shows the first piece of information. It is the one onto which further information will be built up with the overlays. The drawing is traced by the same method as described in para. 2b.

The overlays: a clean sheet of acetate must then be positioned over the base transparency and fastened to the working surface. This is the first overlay and the information required on it is traced from the drawing underneath. This process is repeated for each overlay required. It is generally recommended to limit the number of overlays to four.

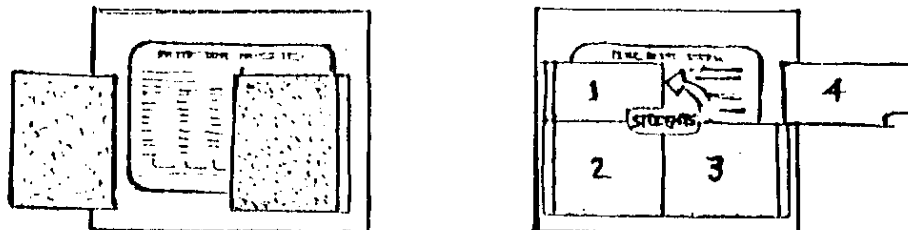
Mounting the transparencies : the base transparency is fastened to the mount, in the correct sequence, taping along one edge. If all the overlays follow the same sequence, they can all be attached on the same edge, preferably on the left side. If you wish to vary the sequence, the overlays may be fastened to any of the four edges of the mount.



Overlay Technique

Masking devices

Masking devices can be used to achieve a controlled-pace presentation. A progressive disclosure is obtained by masking all or a portion of the transparency with an opaque card. Masks can be cut into any shape desired and hinged to the mount with adhesive tape.



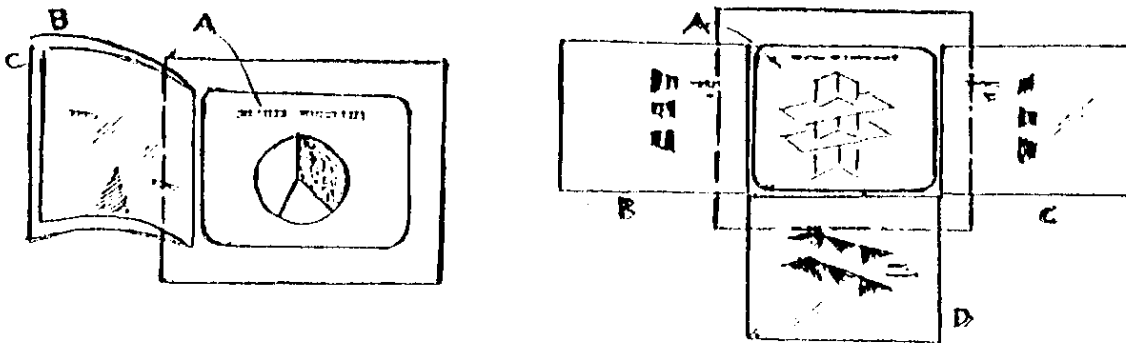
Masking Technique

b. Tracing and mounting the transparencies

The base transparency : the base shows the first piece of information. It is the one onto which further information will be built up with the overlays. The drawing is traced by the same method as described in para. 2b.

The overlays: a clean sheet of acetate must then be positioned over the base transparency and fastened to the working surface. This is the first overlay and the information required on it is traced from the drawing underneath. This process is repeated for each overlay required. It is generally recommended to limit the number of overlays to four.

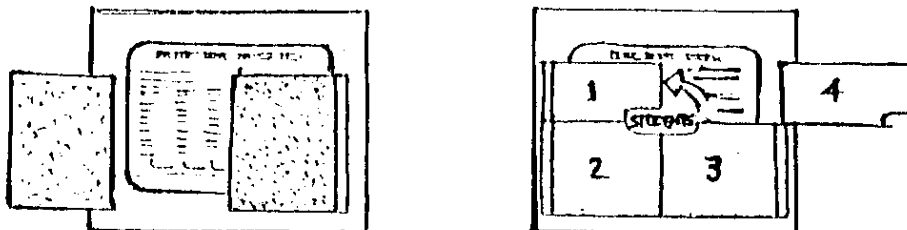
Mounting the transparencies : the base transparency is fastened to the mount, in the correct sequence, taping along one edge. If all the overlays follow the same sequence, they can all be attached on the same edge, preferably on the left side. If you wish to vary the sequence, the overlays may be fastened to any of the four edges of the mount.



Overlay Technique

Masking devices

Masking devices can be used to achieve a controlled-pace presentation. A progressive disclosure is obtained by masking all or a portion of the transparency with an opaque card. Masks can be cut into any shape desired and hinged to the mount with adhesive tape.



Masking Technique

Storage of transparencies

Finished transparencies should be stored to protect the acetate from dust, dirt and scratches, and to stop sunlight bleaching felt and fibre-tip markings.

Many existing storage containers and facilities can be adapted for housing transparencies (L.P. record cases, ring binders, filing cabinets, etc.).

4. MOTION PICTURES

The motion picture is one of the most effective media of communication as the audience get psychologically involved with the subject matter. Although motion pictures are a series of still pictures on a long strip of film, but flashing of each of them momentarily on the screen produces an illusion of movement. So whenever it is important to show movement, a film may be used in preference to slides. However it may be remembered while using the film for training, that the producer has produced the film with some general purpose. It is therefore necessary to prepare the audience towards the specific points of references which the communicator wants to highlight in showing the film. If they know what to look for in a film, they will derive more benefit from it.

Types of films

There are different kinds of movie films which are produced commercially. They are : 8 mm, super 8 mm, 16 mm, 35 mm, 70 mm films.

Projection of 16 mm film

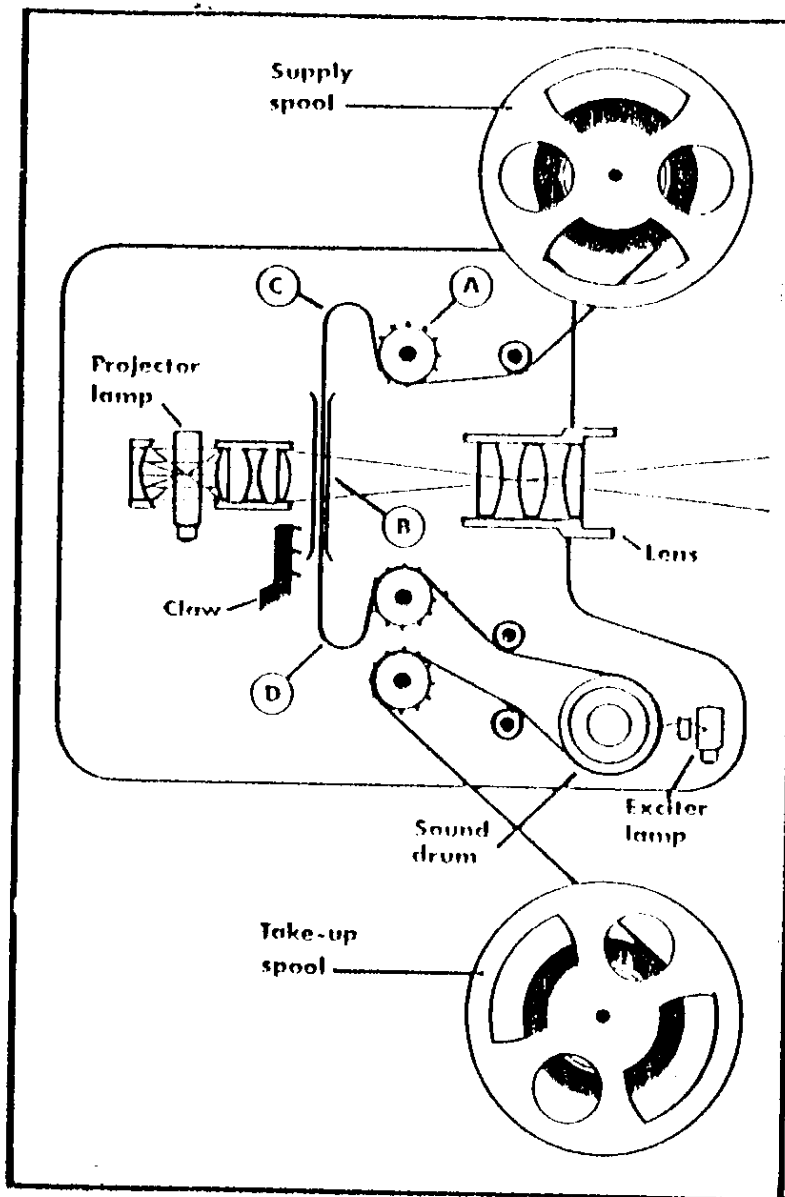
Projection : The cine projector consists of two basic systems, the light system and the sound system. The illustration shows the diagrammatic form of a typical sound projector. Here the

film is taken from the film spool and fed into the projector by a sprocket wheel at point A. It then passes through the gate at point B, where each frame (or single picture) is slid momentarily while a beam of light passes through it, before it is quickly replaced by the next frame. The flashes of light and the movement of the film are both so rapid that the human eye cannot distinguish between individual pictures shown on the screen, and so the illusion of a moving picture is created. The film is thus subject to a very rapid intermittent motion as it passes through the gate, and the necessary allowance is made for this by the introduction of loops of film (at points C and D in the illustration) at the top and bottom of the gate system. This permits an easy change from constant to intermittent bottom and back. Failure to maintain these loops correctly is a major cause of film damage.

The film is then passed into the sound section of the projector. This is usually optical, but may be magnetic. Some projectors have provision for both systems. It is very important that a constant film speed be maintained over the sound drum (optical) or sound head (magnetic). Any variation will be unpleasantly obvious in the form of unsteady sound. With the optical sound system, a very finely focused split of light is beamed through the sound track of the film and variations of either density or area of the track interrupt the light path, and changes in light are detected by the photoelectric cell, a light sensitive device coupled to the sound amplifier inside the projector casing. Thus being converted into electrical energy,

the signals are amplified and fed into the loudspeaker. A playback head similar to that found in a tape recorder is used for magnetic sound strip films.

These basic principles are true of all 16 mm sound projectors. It is important, however, that the instruction manual supplied with each projector be studied with care, that



Principal Components of 16mm Sound Film Projector

emergency procedures are known, and that the machines are serviced at the requisite intervals. Apart from this, it is the responsibility of the user to keep the projector spotlessly clean, taking special care to see that there are no abrasive particles of any kind along the film path, and that no accumulation of dust is allowed either on the gate or on the optical sound system.

Techniques of use :

Every trainer using educational film should confidently be able to use a 16 mm projector. Even if this is usually the responsibility of a projectionist or technician, there may be cases when he is not available and the trainer wishing to use the film will be forced either to set up and operate the projector himself or forget completely about the film and hastily replan his lesson. Sadly, the latter is too often the cases. There is little point in making effective use of the software if one is not familiar with the functioning of the basic equipment.

Although there are a number of excellent books on the subject, there is still a great need for the "Dos and don'ts" of 16 mm projection to be made more widely known.

Before the showing :

A successful film showing depends on looking after a number of details. You will need an adequate power supply that matches the requirements of the projector. This means checking on details such as extension cords and electrical connections etc.

Some means should be available to darken the room. Before the audience arrives the machine should be set up, threaded with film, focused on the screen and tested. The projector should be high enough to project over the heads of the audience and the screen high enough from the floor, for all to see easily the bottom of the picture. A good rule is 4 feet from the floor to the bottom of the screen.

Check list for the show

You will need all or some of the following :

1. The film (more than one reel ?)
2. Spare reels - and they must be large enough.
3. Mains and extension cables.
4. Extension speaker - plugs into projector.
5. Microphone (see later) for Public Address.
6. Spare lamp, exciter lamp and fuse (unless readily available).
7. Gate cleaning brush.

Setting up

Check each reel of the film separately. Are the leader and first few feet undamaged? Then stack films carefully with associated spare reels in correct running order and consider how you will restock as you change reels in a hurry later.

1. Turn on projector amplifier and check machine settings- sound on optical or magnetic (magnetic sound film will have beading of oxide on the film edges but most films will be optical sound); sound/silent set; volume control almost at zero : tone control set at half-way.
2. Lamp on - will economy setting do ? If machine has economy lamp, setting this may double the lamp life; focus the frame and adjust machine's position to suit screen size; note if frame edges are dirty and if so brush clean the filmgate.
3. Fit film reels securely and thread up.

4. Check first few feet of film for damage by letting them run lightly through your finger and thumb from the machine; focus; adjust frame and check sound - note probable maximum sound setting.
5. Rewind to start and shut down; leave volume almost off. Switch off at the mains if you go away.
6. Note that on some machines you can only change speed or check sound when machine is running.

Projector for Public Address (PA)

If you are to show in a large hall or auditorium, it may be useful to be able to address brief remarks to the audience using a microphone. In this case, all you need to do is to plug in a suitable microphone to the 16 mm projector mic. input, switch on the amplifier and turn up volume (if a loud howl ensues this will be because you have the mic. too near the front of a live loudspeaker - just move away).

Showing the film

1. Unplug microphone if there is one. Switch off room lights.
2. Switch on motor and lamp.
3. Fade up sound and focus quickly. If the room is full, you may need more volume. You may also find that extra treble tone setting will improve sound clarity, though 16mm sound is never marvelous. If you are showing without having set up in advance, run the leader through with lamp on and your hand or a piece of card in front of the lens. Watch the film and, as title reaches the gate, remove hand/card, fade up sound, focus and frame.
4. Stay near projector in case of stoppage. At reel end, fade out sound and turn off lamp. Leave motor running to cool off lamp and never move the projector until it has cooled (feel the air from the fan getting cooler).

Reverse running

Be sure the machine is cleared for reverse running because a number of older machines have the nasty habit of chewing up film when reversed.

Still picture and animation

Most modern machines have a 'still picture' facility which allows a frame to be projected in the gate when the motor is stopped. To permit this, the still-picture selector causes a heat filter glass to come between the projector lamp and the film to prevent the film being burnt. This glass absorbs light as well as heat to reduce heat intensity reaching the still frame. You may need to revert to the full brightness setting if you were using economy setting. If an animation button is fitted, it allows the still pictures to be moved on frame by frame as the button is pressed.

Safety

Never neglect safety. The thoughtful user will always run an eye over the equipment whenever it is handled. Look particularly for condition of cables and plugs and for any sign of breakage from being dropped, etc. In use, listen for the unusual noise and note any signs of overheating, e.g. smells and smoke; these are unlikely occurrences but, having thought of them beforehand, you are better prepared to act quickly. Report defects immediately; you return the equipment and if necessary take the machine out of use and label it unserviceable.

Finally you can't be too careful with trailing cables.

After the show

Rewind the reels properly, report any damage rather than try to fix it, complete any form including the occasional audience research and, most important, return the film on time for the next user.

There are a number of books and other materials on projection, but I believe that any trainer with a little practice and organisation can acquire the confidence and, moreover, will find adequate material in the catalogue to make it worth the trouble. None will appreciate your efforts more than your audience especially if the effort is well organised and the showing runs smoothly.

Projection screens and seating arrangements for projection rooms

Projection Screens :-

The main functions of a projection screen can be specified as follows :

- The screen should reflect a maximum of light from the projector to the entire audience.
- The screen should reflect a minimum of light onto the walls and ceiling. The 'stray light' lost in their way is often reflected back onto the screen thereby decreasing the contrast of the picture.
- The screen should reflect a minimum of light from other light sources such as windows, lamps etc., to the audience. Such reflections will disturb the picture and the contrast will be decreased still further.

Various kinds of screens are available to meet these differing demands. For practical application, the screens described below must be considered.

Matt white screens

Matt screens can be composed of many different materials, such as white painted or plastered walls, sheets, or matt white painted boards. The type of coating and finish may have a considerable influence on the practical properties.

Matt screens can be advised if:

- Price is important.
- Dead-sharp pictures are a prime consideration. In this case, the surface must be matt, but without any visible structure or pattern.

- The projection takes place in a pronounced wide room.

Because of the wide angle of reflection obtained with matt white screens, the room must be rather well darkened to reduce stray light reflection.

In special projection rooms, ceilings are often coated with a dark, non-reflecting paint to further eliminate the influence of stray light on the picture contrast.

Patterned or specially prepared white screens

Patterned or prepared white screens are available in many forms and with many different characteristics. These screens are more or less generally suitable, but are often chosen for use in relatively wide rooms. Darkening of the room remains desirable because of the relatively wide angle of reflection.

Metalized screens

Metalized screens produce more direct reflection than those previously mentioned. There are many different types of metalized screens available. With narrow-beam metallic screens in particular, there is less need to darken the room.

Glass beaded screens

Glass beaded screens are used in situations where a high concentration of reflected light is essential. The screens have a matt white base, coated with minute glass beads. Because of this concentrated reflection, glass beaded screens are useful for long, small rooms and for projectors having a relatively low light output. Although not strictly necessary, liberal room darkening will contribute to picture quality.

Seating arrangements for projection rooms

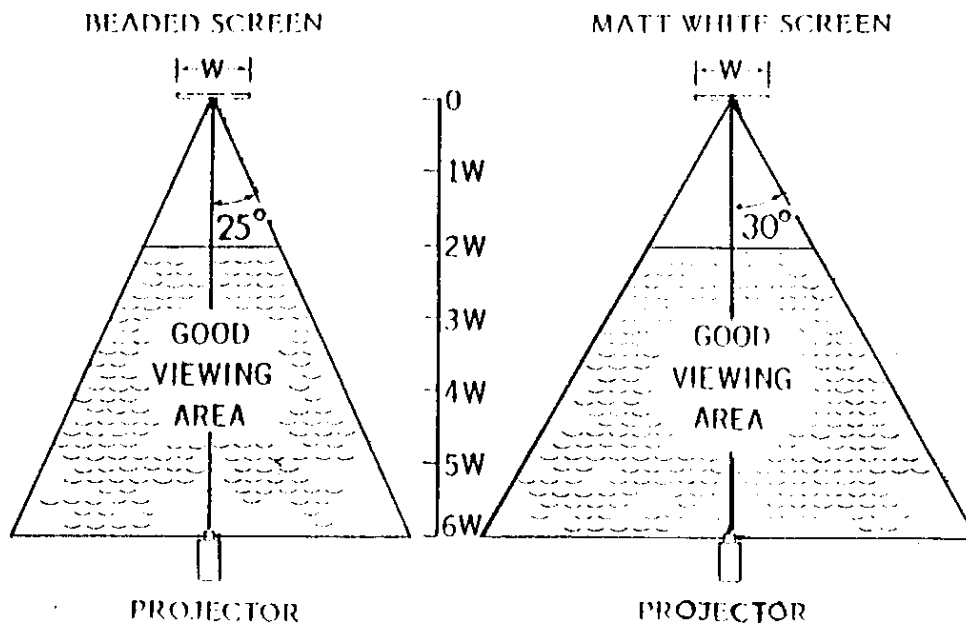
When a room is to be equipped for projection, the main points to consider are the proper balance between projector and screen, size of the room, arrangement of the audience and presence of ambient light.

The general geometric arrangement of the audience is defined by certain rules:

- Minimum viewing distance is $2 \times$ screen width (2W).
- Maximum width of audience area is $3 \times$ screen width (3W) or maximum viewing angle (this is the angle with perpendicular) 45° .

- Maximum depth of audience area is 6xscreen width (6W).

A viewing angle of over 45° is not recommended because distortion of the image will take place. A generally acceptable value is 30° .

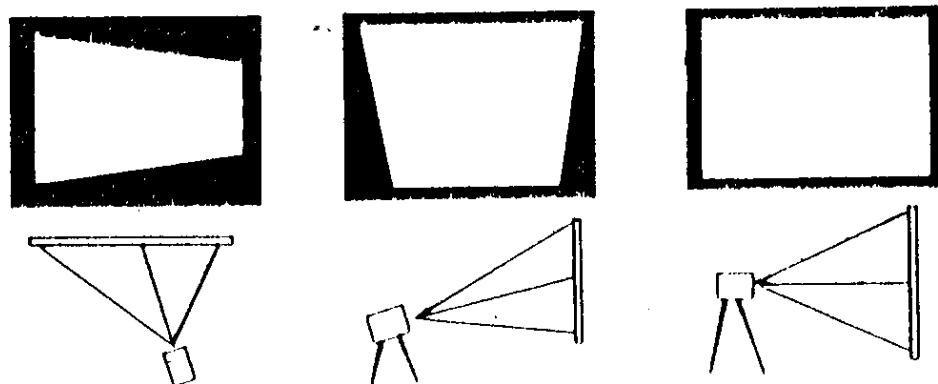


Good Viewing Angle for Different Types of Screens

Frequently, a screen is installed too low or too high, in both cases it will be a source of discomfort to the viewers. An acceptable position is with the base of the screen approx. 1.25 - 1.2 m (4feet) above the floor level.

If the projector is placed within a relatively short distance of the screen, such as with overhead projectors or other

short-focus projectors, risk of keystone distortion cannot be ruled out. This will occur if the screen is not perpendicular to the optical axis of the projector. Apart from considerable picture distortion, focussing will be difficult. The effect is overcome by tilting the screen sufficiently.



Proper Placement of Screen for Projection

Important steps in good film Utilisation

I. Select the film caerfully

- 0 Preview the film before showing it.
- 0 Be sure, the film actually helps to meet the training need you have in mind.
- 0 Avoid selecting films which are too long to permit adequate introduction before .and appropriate group discussion after the film showing.

II. Plan the presentation

- 0 Make notes on the points you want to stress in the film.
- 0 Prepare transition comments those are necessary.
- 0 Allow adequate time for introducing the film and for summarising and discussing it after the showing.
- 0 Prepare a written outline covering the introduction and

discussion periods.

- 0 Secure the services of a projectionist or train one to assist you.

III. Have the room and equipment ready for the film showing

- 0 Have the equipment and keep film ready before the group assembles.
- 0 Check the seating and ventilation arrangements to ensure maximum comfort for the audience.
- 0 Audience location should be within a thirty-degree angle from the screen for best vision.

IV. Prepare your audience for the film

- 0 Explain the purpose of the film.
- 0 Briefly indicate what the film contains.
- 0 Tell the group members what to look for in the film.
- 0 List important points briefly on the blackboard.
- 0 Let group member know your plan to have an exchange of ideas after the showing.
- 0 Explain any qualifications about the film content which seem appropriate.

V. Show the film

- 0 If possible do not rewind the film or start to pack up the machine until the audience has left the room.
- 0 If you have more than one reel, rewinding and/or changing should be done at this time by an assistant.
- 0 Discuss briefly one of two points or questions with the group while the reel is being changed.

VI. Summarise and discuss film content

- 0 Get group discussion on the major points presented in the film. (Refer to blackboard list)
- 0 Use a planned discussion outline which includes thought-provoking questions.
- 0 Did you get something from this film and our discussion which can be put into operation in your job ? How do you plan to do it ? Will you need to consult your chief ? Others ?

0 Close discussion before interest lags.

5. EPISCOPE

Among the several kinds of projected visual aids, Episcopes is the only piece of equipment capable of projecting non-transparent materials. The light from the projector lamp is concentrated on the opaque material held in contact with a glass plate and the reflected image of this material is directed through the projection lens and focussed on the screen. Illustrations, diagrams from books and any printed matter of appropriate size may be presented directly without the need for any intermediate process.

The materials which are required to be presented frequently, may be mounted on sheets of cardboard or on a long strip of paper folded concertina-wise and conveniently arranged for feeding through the projector. Mounted materials should never be rolled.

The episcopes must have a very efficient optical system to gather all possible reflected light, necessitating the use of large diameter lenses and a powerful light source. The most powerful projectors will need some mechanical aid for cooling, for much heat is generated at the time of projection. Such projectors are large and heavy and are not convenient to carry from one place to another. An efficient form of room blackout is essential as small leaks of light may seriously affect the picture quality. Total blackout of the room may be of great disadvantage as note taking becomes impossible and ventilation difficult. Due to the short throw of the lenses normally used, episcopes should be placed in the centre rather than at the back of the room. It is

better suited for more permanent installations like training centres.

Episcope may be very effectively utilised for the copying of materials needed for the preparation of other kinds of visuals like charts, flannelgraphs, posters etc.

Usually little is required in the way of maintenance as there are very few mechanical parts. It is important however to keep the reflectors and all other glass surfaces and lenses clean to maintain maximum efficiency and to keep the projector covered up when it is not in use. Do not however, cover it until complete cooling has taken place.

FACTORS INFLUENCING SELECTION OF MEDIA

It is very important to select appropriate combination of media from the total gamut of audio-visual communication aids. Such selection will however be influenced by a series of factors concerning the instructor, the audience, the message or even the teaching/learning objectives of the trainer. The golden rule for media utilisation is to use combination of media to produce maximum change in the audience.

1. Nature of the Message :

The complexity and type of message is the factor which the trainer should take into consideration while selecting the media. More complex the message, more intense should be the use of media at individual level. In order to train the extension workers, the method of mixing a number of insecticides and applying them at a particular point of the paddy crop to control

Brown Plant Hopper, demonstration with the live objects coupled with filmshow will be effective rather than the use of posters or charts.

2. Type of Learning Task:

The trainer intends to bring about changes in the behaviour of the audience usually at the levels of their knowledge, skill and attitude. While the change in knowledge or attitude usually takes place at the affective level, skill change involves more of motor learning. Hence method or result demonstration with the help of actual object, model, slide cum tape presentation or video or motion picture will be more appropriate to help audience gather information on how to do a particular practice. In order to change the level of knowledge or attitude, the trainer should generally use a combination of various types of media. The general guideline is to use impersonal media like posters, charts, motion picture at the initial stages of learning like awareness and interest, but shift to greater use of personalised media like showing of actual objects, presentation of with the help of photographs, slides or video (if they cannot be taken to the actual site) for motivating the audience to action.

3. Characteristics of the Audience:

The audience in the form of their size, education level and experience in the particular field of the message also influence selection of the media. With the increase in size of audience, use of chalk board, actual objects or demonstration with the help of models etc. should be abandoned in favour of more of mass

media like television, recorded media, motion picture, print media etc. Similarly, their education level will influence the selection of media involving written symbols etc. With less educated clientele more of visual and audio-visual media need to be incorporated in the teaching plan.

4. **Skill of the Trainer:**

The selection of media should be basically dependent on the confidence of trainer on a particular method. If the trainer does not possess skill of operating a movie projector and in case the operator is not available, he cannot keep this media in his teaching plan. Similarly the use of non-projected media like flannel graph or flash cards also require the skill of presentation on the part of the trainer. Hence the selection should be made from those media only which the trainers is skilled enough to handle.

5. **Cost Related to Funds:**

The training fund will ultimately restrict the trainer from using media, even if they are considered to be effective in specific situations. As a result, even if the use of video cassettes or slide stories, appear to be more effective in a situation the trainer will have to remain contented with less costlier methods inspite of being less effective, if his funds do not permit to procure such expensive hardware or software. However, sometimes alternative less costlier gadgets are also available. For example, if the size of audience is smaller, one can use relatively less expensive slide viewer instead of electrically operated slide projectors.

6. Practical Constraints:

A number of practical constraints involving availability of physical infrastructure also influence the selection of media.

They are:

- (a) availability of materials
- (b) availability of software
- (c) availability of spareparts
- (d) availability of space
- (e) availability of maintenance facilities.

PART 4

REVIEW PAPER "RURAL DEVELOPMENT STRATEGIES AND EXPERIENCES IN BANGLADESH : SOME ISSUES", PREPARED FOR THE INTERNATIONAL SEMINAR ON "RURAL DEVELOPMENT IN BANGLADESH : STRATEGIES AND EXPERIENCES".

BACKGROUND

The PRODOC contemplated holding of a workshop on rural development with national and international participation which would come out with a framework of future rural development strategies in Bangladesh based on the review of past experiences and identification of prospective approaches to consolidate them. Accordingly, an International Seminar was planned for organisation as a part of the project.

Although, this activity was planned as a component of socio-economic research master plan, the project management allotted the responsibility of directing the seminar to the Deputy National Project Director, who was also the Director (Training) of the academy. The responsibility of preparing the review paper out of all the contributed papers was vested on the Training and Education Consultant by the project management. However, this activity was in conformity with the third item of the consultant's TOR wherein he was required to identify, plan and help execute workshops.

The planning for the seminar as well as invitation for papers were already completed by the time the consultant took position. Thus the contribution of the consultant remained restricted to preparing the paper by providing a framework for discussing the strategies of rural development in Bangladesh.

In all 23 papers, including the keynote paper were reviewed while preparing the review paper. The paper culminated into raising of series of pertinent policy and managerial issues for deliberation in the seminar.

THE PAPER

Almost all the countries in the developing world face the challenge of providing adequate employment and food entitlements to their present population, slowing the rate of population growth to a steady and manageable level and producing an annual increase in food output that can sustain the demand of the increasing population. Thus, by rural development we mean raising the productivity and consequently the real income of families earning their livelihood in rural areas, by increasing employment opportunities in farm and non-farm activities, thereby facilitating their levels of physical, social and cultural well-being. Rural development involves inputs from a large number of government supported activities and agencies as well as from non-government sources. It encompasses widerange of developmental activities involving productive sectors like agriculture, fisheries, livestock, industries, infrastructure development (irrigation roads electricity etc.), Social welfare (health, nutrition, education etc.) and support for productive activities like research, extension, credit, processing, marketing etc. and so on and so forth. Thus, rural development is everywhere a concept, which confronts Governments with very complex problems of administrative management including the orchestration of numerous public service: and non-government organisational efforts. so discussing the strategies and experiences of rural development process of a country like Bangladesh having a rich heritage of about four decades of organised effort is undoubtedly a challenging task. However, an attempt has been made in this

paper to discuss the more salient features of such experiences in the backdrop of the changing rural development scenario, conceptualised in the form of a frame work.

Bangladesh with her predominantly rural population of 84 percent is characterised by a stagnation in the economy with per capita income stooping as low as \$170 per annum. The situation in the rural areas is still worse with unemployment and under-employment widely prevalent at least with 40 percent of the ruralites. Everincreasing landlessness to the tune of more than fifty percent and extremely uneconomic size of holding with another 25 percent make the situation even more difficult. As a result, they are in the process of marginalisation from the primary sector of agriculture and look for supplementary sources of income outside agriculture. But the secondary and tertiary sectors of the rural economy have not yet been capable of absorbing the large scale exodus from the primary sector. As a result, poverty situation, though improved since early eighties, (45 percent in 1988-89), remains still alarming in the rural areas as compared to the other developing countries.¹

In the face of such challenges, the prime needs of rural development in Bangladesh have been identified as productive employment and income generating programmes in both farm and non-farm sectors alongwith appropriate technological information on

1. The World Bank, : Poverty: World Development Report, 1990, Oxford University Press, 1990.

land based activities and development of basic infrastructures. The primary vehicle for such developmental activities has been conceived to be the local level institutions with the principle of participatory development. These programmes of rural development are particularly aimed at benefitting poor and disadvantaged sector of rural population creating wage and self-employment opportunities, thereby increasing their income potential.²

RURAL DEVELOPMENT IN BANGLADESH : PROCESS AND IMPACT-A FRAMEWORK

Poverty being the overriding problem of the nation, all through her planned development efforts, attempts have been made to alleviate such malaise by taking recourse to various forms of interventions, which can be classified for conceptual clarity into institutional, technological and disadvantages-focussed efforts by packaging them in different forms of rural development programmes. The underlying assumption behind all such interventions were that they would be able to promote income and employment opportunities by augmenting the production potential in the rural areas and thereby ultimately create a basis for an egalitarian society. All such attempted interventions can be brought under the framework of the development process of rural Bangladesh as suggested in figure 1. However, it should be made very clear that one can see the development interventions under different framework depending

2. Planning Commission, The Fourth Five Year Plan: 1990-95, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka, 1990.

upon conceptualisation of the process. The purpose of the suggested framework is limited only to examine the varied experiences in the light of perceived goals of development in a welfare state like Bangladesh, which had foreseen a constitutional obligation of ensuring right to work and equal opportunity to every individual by limiting private ownership to create an egalitarian society.

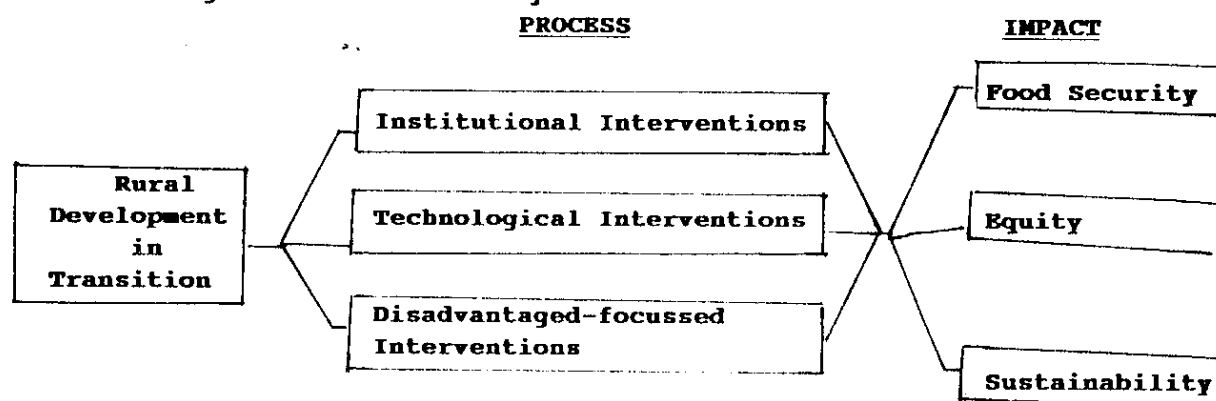


Figure 1. Rural Development in Bangladesh: Process and Impacts

In the light of such goal, the everchanging scenario of rural development process of Bangladesh can be depicted through a series of interventions made by Government and Non-government agencies from time to time. One way of looking at the interventions is to categorise them according to their focus, which in this paper has been attempted by putting them under institutional, technological, and poverty focussed interventions. In order to critically assess the outcome of such interventions in creating a base for an egalitarian society, their impact must be discernible in terms of increased food security, equity and sustainability for the people at large.

An attempt has been made in the present paper to review different kinds of rural development interventions in the above mentioned framework to decide on the future strategy.

I. INSTITUTIONAL INTERVENTIONS

Institutions are created in organising developmental activities. The government as well as non-government organisations in undertaking rural development activities according to their respective mandatory areas, established such institutional structures in the rural milieu. In Bangladesh also a series of such interventions took place.

Bangladesh emerged as an independent nation only in December 1971. In view of being a part of the then undivided Pakistan since 1947, its rural development programmes were considerably influenced by the national priorities mostly decided centrally. With the withdrawal of British, a major change in the role of governmental systems occurred in the subcontinent. From mere law and order and revenue collection, the emphasis was laid more on creation of effective governmental and other institutions at the local level for more rapid economic and social development. As overwhelming majority of the population lived in villages, the Government was dutybound to create institutional structure at the village level to carry out developmental activities. Although rural development efforts started with the establishment of a provincial department of Agriculture as early as 1885, the real intervention which could take route in the rural milieu of Bangladesh (the then East Pakistan) was the Cooperative movement initiated as a government sponsored programme at the beginning of this century. Provincial Co-operative Bank, Central Bank and Village Co-operative Societies were the components of such

movement in the countryside. Besides the co-operatives, a system of local self-government in rural Bangladesh was installed in 1885. Subsequently, since the formation of Pakistan till recent past, a series of institutional interventions were made. An analysis of such interventions will help one to understand the overall direction of these efforts.

1. Village Agricultural and Industrial Development Programme (V-AID) as the Comprehensive Effort of Development:

The first attempt to carry out this comprehensive programme of village development was initiated in 1953 through the creation of a countrywide network of institutions mostly manned by officials representing various development departments. The programme, popularly known as V-AID was designed to solve the problems of village by self-help by creating community organisations under the leadership of local leaders. The concept of village level multipurpose worker as link functionary between the villages and the nationbuilding departments was first introduced in this programme. Through the process of planning with the people, he was to create a spirit of self-help among them and also become the channel of extending the services of the government. The V-AID programme was thus, neither to be independent of nor competing with various nationbuilding departments. On the contrary, they were really to play complimentary role to each other.³

3. Hussain, M.Z. "Village Agricultural and Industrial Development Programme", paper presented at the International Seminar on Rural Development in Bangladesh : Strategies and Experiences held at BARD, Comilla, Bangladesh during January 15 - 17, 1992.

To train the functionaries under V-AID, training Institutions were established in each of the two provinces of East and West Pakistan. Two Academies, one at Peshwar and the other at Comilla, were established to train the officers working in the field and carry out research on rural development. Besides, a number of institutes were established to train the V-AID workers.

Lack of Local Leadership:

But the programme achieved limited success due to various reasons. Firstly, the programme expected too much from the people in the form of voluntary work, while the leadership was imposed from outside, rather than evolving from within the village community. The missing link in the Village-AID programme was really the absence of local leadership and the development and growth of institutions within the rural society which would bring the rural areas into direct contact with the process of development originating in urban centres, provide a channel of communication for the needs and desires of the village population regarding patterns of development to higher levels in the administrative hierarchy and relay back the decisions supported by necessary financial allocations.⁴

Problems of Coordination:

Secondly, the nationbuilding departments accepted neither the coordinating role of the V-AID programme, nor the V-AID workers as the link functionary with the villages in respect of their programme. A good deal of hostility between the V-AID created

4. The Third Five Year Plan (1965-70), June 1965, p 507-509.

organisations and the existing local bodies also cropped up with the local institutions on one head and the V-AID failing to take root in the rural milieu on the other.⁵

Development of Dependence Syndrome :

Thirdly, provision of subsidies in the shape of money and materials to individuals and groups introduced dependence syndrome on Government help and destroyed the spirit of self-help, education and organisation building.⁶

The programme was abandoned in 1960 without any evaluation of its achievement with the introduction of basic democracy. So, the basic reasons of the decline of V-AID, as apparent from such evidences are failure of associating the people with the programme in the capacity of partners, rather than more subjects of development and lack of integration of the efforts of the nationbuilding departments and V-AID. Thus the programme failed to sustain in the absence of political and administrative commitment.

Presence of the Institution Felt :

Nevertheless, the programme did succeed in creating an impact among the rural people, because they viewed it as the firstever attempt to solve at least few of their multifarious problems. Demand was highest for the infrastructure development attempts of construction of roads, culverts, bridges, dykes and embankments and excavation of canals. Next in demand was the provision of safe drinking water. Inoculation of poultry and livestock also received enthusiastic response. In these ways, the

5. Masud-ul-Hassain, "Local Bodies in West Pakistan 1947-1966, Pakistan Quarterly 14: 65-73, 1966.

6. Hussain, M.Z. *ibid*.

programme at least succeeded in bringing into sharp focus the need for rural development and possibility of securing people's response to such interventions. This became the precursor of the Comilla experiment through the initiation of the Thana Training and Development Centre, innovated by Dr. Akhter Hamed Khan.⁷

2. Comilla Experiment on Rural Development - A Model for Institution Building :

The complex question of determining how to go about changing institutional arrangements so as to aid in accelerating rural people's investment decision towards improved production has been answered in different ways in various parts of the world. On one extreme lies the efforts of ensuring availability of highly productive agricultural technology in the society and encouraging private entrepreneurs to come forward and make investments accelerating growth. The capitalist form of agriculture prevalent in West is an example of this kind. Another extreme strategy is based on the assumption that government has the most knowledge about new agricultural technology and therefore knows best about how to rapidly develop agriculture. The most usual fall out of such assumption has been noticed through complete reorganisation of the rural society into large collective or communal farms evidenced in till prevalent East European communist block or in China. Both these are extreme strategies from an economic as well as other points of view. In contrast, there had been several successful and less extreme national strategies for accelerating agricultural growth. Such approaches emphasise on acceleration of economic and social

7. Op cit.

transformation by retaining the prevailing social structure and not attempting to completely replace it by transplanting directly foreign models. The rural development programmes developed at the Pakistan (now Bangladesh) Academy for Rural Development at Comilla, Chilalo Agricultural Project in Ethiopia are examples of such experiments.⁸

These development programmes, it should be stressed, never attempted to generate new and more profitable technology. But its focus was on evolving organisational innovations for increased access of the farmers to new technology, including the provision of training to ensure the required investment in human capital for productive use of the technology.

Background :

The Academy at Comilla, while attempting to train the V-AID functionaries felt the need for making the contents more practical and based on experiences. Hence, decision was taken to introduce the pilot projects almost immediately after its inception with the two-fold objectives of providing real life learning situation for the trainees and thereby develop replicable models for institution building in the country. The underlying methodology behind such projects has been popularly known as "Comilla model of rural development".⁹

-
8. Stevens, R.D. "Comilla Rural Development Programme to 1971", in Rural Development in Bangladesh and Pakistan (eds). Stevens, R.D. Alavi. H., and Berfocci P.T. East West Centre Book, The University Press of Hawaii, USA 1976, p95-178.
 9. Sattar, M.G. "Comilla Model of Rural Development - Significance and Relevance," paper presented at the International Seminar on Rural Development in Bangladesh: Strategies and Experiences held at BARD, Comilla, Bangladesh during January 15-17, 1992.

Approach :

The most important element of the Comilla approach to rural development is the creation of an institutional base to the rural society and integrating certain basic developmental programmes around them. The four major components were:

- O A two-tier cooperative system with the primary societies at village level (KSS) and central association at Thana (presently upazila) level (TCCA)
- O A reorganised rural administration system and local government institutions for coordinating the development activities of the nationbuilding departments operating at the Thana level.
- O The Thana Training and Development Centre (TTDC) as an institutional mechanism for coordinating and meeting the training requirements for planning and implementation of development programmes through the officials as well as the institutions and leaders of local governments.
- O Infrastructure development programme- the Rural Works Programme (RWP) and the Thana Irrigation Programme (TIP), the two model components of collaborative efforts of the local people, local government and nation building departments.

A laboratory area of 100 square miles was chosen in Comilla Kotwali Thana for carrying out such experimentation, thereby providing a sufficient experimental base for the findings.¹⁰

The essence of these components of Comilla model was to bring about a vibrancy in the rural economy, basically through the principle of people's participation and self reliance. The TTDC was an attempt of providing a decentralised and coordinated institutional base for local level planning and human resource

10. Khan, A.A. "Comilla Experience in Rural Development," in Report of the Workshop on Poverty focussed Rural Development and Small Farmers' Credit, held at Comilla during March 1982, Commonwealth Secretariat, Vol II, p 10-21.

development. All services and supplies and technical expertise were made available at one place for the convenience of the people. The Rural Works Programme (RWP) had on the other hand met the requirements of infrastructure development for productive purposes through local level employment generation under the leadership of local organisations. The Thana Irrigation Programme (TIP) was really an attempt of development and management of irrigation resources of the people themselves. The two-tiered cooperatives on the otherhand was an attempt of organising small farmers through resource mobilisation by way of thrift and help them to improve their production potential by promoting managerial and technical skill through training. Thus the ultimate aim of such attempt was to bring the poorer farming population out of the clutches of moneylenders and introduce the spirit of self-financing and self-management among them.¹¹

All these components were mutually interdependent signifying the multi faceted characteristics of rural development process. As a result it was made very clear that the programme should be implemented around a common thread, the two-tiered cooperative structure. While the cooperative will mobilise resources and provide the technological base for modernising farming methods through the TTDC, the RWP and TIP would develop the productive capacity of the land and increase income earning opportunities by the poorer villagers in such process. If any one of these fails, the whole superstructure, crumbles down. Thus the Comilla model, became a precursor to integrated rural

11. Sattar, M.G., *ibid.*

development in sixties much before the international agencies came out with such approach.¹²

A Few Learning Experiences :

The Comilla experiment had established a number of learning experiences, which have been instrumental in shaping the rural development process of Bangladesh subsequently. Firstly, it offered an alternative to the bureaucratic model with the introduction of decentralised administrative structure for organising participatory rural development; secondly, it had shown an effective way of tackling, a few critical and chronic problems of low productivity, food deficit, unemployment and growing poverty in the rural areas; thirdly, it demonstrated a viable method of organising villagers, self mobilisation of resources and ensuring participation in planning and implementation of development programmes. All these learning experience led the Government to adopt the four major programs, Viz., the TTDC, RWP, TIP and TCCA, for replicating them throughout the nation. ¹³

However, in course of time, a few points of criticisms were raised against the comilla approach. The major theme of such criticism is that the model do not bring any structural change in the rural society by altering the land relations. While the benefits of the development have been cornered by the well-to-do farmers due to their better resource endowments, it did not really bring about economic self-reliance, so very vital for the

12. Op cit.

13. Op. cit.

sustainability of any rural development strategy. ¹⁴ But the fact remains that, no other model of rural development so far could secure involvement of the farming population themselves, as the Comilla approach could create among the villagers in and around Comilla. This shows the effectiveness of the basic principles behind the model.

3. The Comilla Rural Administration Experiment - the Precursor to Decentralized Administration in Bangladesh.

Background :

There is a long history of elected institutions in Bangladesh beginning with the establishment of District Boards set up in the later part of the nineteenth century. The idea of using local institutions to mobilise and represent the broad mass of citizens in their own development, however came only after independence. With the introduction of Basic Democracy Programme in 1959, the old Union Board System of local government was dispensed with by putting together a carefully orchestrated system combining direct elections at village level with successively more indirect representation of people at next four higher levels and presence of increasing number of officials upto the district level. ¹⁵

With the failure of V-AID to become an effective institutional intervention in bringing about change through independent departmental activities, the Comilla Academy

14. Bose, S. "The Comilla Cooperative Approaches and the Prospects of Broad-based Green Revolution in Bangladesh, World Development, Vol 2, 1974; Blair, H.W., "Rural Development, class structure and Bureaucracy in Bangladesh" world Development, vol. 6, 1978, cited in Sattar, M.G., op.cit.

conclusively established the need for three kinds of coordination through their initial exploratory analysis of problems at the thana level. They were coordination of different departmental programmes at thana level; coordination of departmental efforts with those of the next lower level of government, the unions; and coordination between different unions.¹⁶ With the Basic Democracy being installed almost at the same time, a thana council came into being, comprising of chairman of each directly elected union councils, plus government officials (25 percent) and appointed members (25 percent). Having created the organisation, the question posed was what powers and activities were appropriate for the new lower levels of the government. As it turned out, the Rural Works Programmes became one major area of successful activity of the thana and union councils with 71 percent of the allocations going to these levels of government in 1966/67. The Basic Democracies System was accused of becoming heavily used as a patronage mechanism for funneling public works money down to the village (i.e. the Basic Democrats) level. The Basic Democrats found that they could build up their own positions of local power and status by disseminating the patronage.¹⁷ Partisan use and abuse of local government has been a very crucial issue all throughout the history of decentralised administration in Bangladesh. ¹⁸

15. Blair, H.W. "Participation, Public Policy, Political Economy and Development in Rural Bangladesh, 1958-85, World Development, 13(2), pp. 1231 - 1247.

16. Mohsen, A.K.M., The Comilla rural Administration Experiment: History, Pakistan Academy of Rural Development, Comilla 1963.

17 Blair, H.W. *ibid*;

Process:

Such political abuse of the local government notwithstanding, the Comilla experiment on rural administration did come out successfully in 1964, with a well-knit organisational innovation known as Thana Training and Development Centre (TTDC). By 1970, most of the thanas of the province were having TTDCs for coordination of development activities of the government and training of villagers, officials and local leaders on improved methods of production. It was in effect made the executive body for the planning and implementing development programmes within the thana. Thus the experiment was effective in creating an environment of development partnership.¹⁹

In spite of numbers of political changes and administrative reforms since 1971, the TTDC structure in the local government set up survived till 1982. With the assumption of power by General Ershad, a high powered committee was set up to review and identify the inadequacies of the prevailing rural administration and recommend an appropriate and effective system based on the spirit of devolution. On the basis of the recommendations of such committee, the concept Underwent major changes.

While the thana (renamed at upazila) level was awarded greater importance in relation to the districts, the services of

18. Sultan, K.M.T and Ahmed, T. "The Comilla Rural Administration Experiment and Decentralised Administration in Bangladesh", paper presented in the International Seminar on Rural Development in Bangladesh: Strategies & Experiences held at BARD,

19. Op cit.

the officials and staff of all the thirteen nation building departments was placed at the disposal of the upazila parishad, an elected body. Areas of jurisdictions were more clearly spelt out by empowering the upazilla parishads, to deal with the ten odd transferred subjects without direct intervention from the central government.²⁰ In this respect, the new system undoubtedly went ahead with more devolution of power to the local level of administration.

Result :

But the role of TTDC addressing to the total gamut of participation in respect of implementing self-sustaining development programmes was seriously challenged with the upazilla scheme facilitating the growth of a new set up thriving on unearned and non-productive income. The share of local resources in the total income and expenditure of the upazila (heavily funded by the central government) came down to bare minimum of five percent on an average. Physical facilities as well as the size of bureaucracy created at the upazila, seemed to be disproportionate to the share of actual development activities and development expenditure. Above all, the upazila system accelerated the degeneration of the politico-ideological movement of self reliance and participatory development by accommodating and distributing patronage among local political bigwigs, relegating people into the background.²¹ Even the upazila

20. Op cit

21. Op cit.

Parishads have now been abolished with the change in leadership at the national level, leaving a big question mark on the future of rural administration of Bangladesh.

4. Cooperative Movement in Bangladesh

History of cooperative movement in Bangladesh dates back to the beginning of the present century to pool the limited resources of the poor villagers to enable them to jointly venture for their economic development. In spite of its chequered history of success and failure in this sub-continent, it still retains its attraction as a method for evolutionary social change. It is still considered to have the capacity to provide the principles and modus operandi to unite the disadvantaged people to further the common goal of economic and social well being. This is all the more appealing under the context of poverty-stricken Bangladesh.

Dualism in Management System :

But the cooperative movement in this country has been characterised by adoption of varied kinds of management systems. In this respect, it is said to have adopted a 'schizophrenic personality', being managed and controlled by two separate organisations, namely, the Registrar of Cooperative Societies, (RCS) and the BRDB, under the same ministry with widely diffused promotional responsibilities. They are structurally different from each other, with the BRDB following a two tier structure, federated at upazila level and the RCS ones having federation at

different levels with the CCBs, sometimes becoming the rallying point. Still another alternative system of cooperatives has also been coming up in the rural areas, through the intervention of different types of NGOs with target group oriented approach, opposed to the traditional open door policy adopted by general cooperatives.²²

Resultant Rivalry:

Such dualism in management has created the problem of rivalry, specially between those managed under the RCS and BRDB. The two-tier cooperative structure, originally developed as a result of Comilla experiment was assigned to BRDB for replication throughout the country. They are relatively fast expanding and has been more active compared to the traditional ones. A feeling prevailing among the officials of the RCS has been that, they are being undercut and left out with more vigorous promotion effect of the government in favour of the former. This is definitely coming in the way of healthy development of the movement. The joint review of IRDP by Govt. of Bangladesh and the World Bank, realising the negative impact of such problem, eventhough recommended merger of KSS and UCMPs with the two tier cooperative and affiliate it to the UCCAs, the progress in this direction has been very slow.²³

-
22. Ahmed, M. and Islam, A.F.M.M., "Performance and Managements of Rural Cooperative Societies in Bangladesh", Bangladesh Journal of Political Economy, Vol 10(3), September, 1990.
23. Islam M.M. "Cooperative for Rural Development in Bangladesh : A Study from Management Perspective", Bangladesh Journal of Political Economy, Vol 10(3), September, 1990.

Domination of vested interest groups:

Eventhough, the cooperative institution was created to improve the productive capacities of poor and disadvantaged, experiences across the country showed that usually the relatively more affluent, educated and crafty people got into the managing committees of the primary cooperatives. Such domination by rural elites resulted into malpractices and self-aggrandisement.²⁴ Such domination of vested interest groups have also been reported in case of KSS and fishermen's cooperatives.²⁵

Lack of Supervision:

Such problems of vested interests' domination have been possible due to lack of supervision and cooperative discipline among the UCCA officials, responsible for supervision and guidance and the failure of RCS officials in conducting inspection and audit of the same. Lack of training, motivation and integrity on the part of cooperative officials have been reported to be coming in the way of enforcement of such disciplines.²⁶

24. Op cit.

25. Rahman, A.M.M. "General Cooperative Based Rural Development Efforts", paper presented in the International Seminar on Rural Development in Bangladesh : Strategy and Experiences, held at BARD, Comilla, Bangladesh during January 15-17, 1992.

26. Op cit

Management Problems :

Cooperatives being democratic institutions, their management is dependent on joint decision making, which should be highly participatory. Several kinds of management problems have been reported to have come in the way of efficient management of these institutions. Poor attendance in meetings, poor weekly savings, no provision of disincentives for being defaulter in meetings, poor quality of managers of primary societies have been some of the management problems of day-to-day affairs of the societies.²⁷ Similarly, in financial management, inadequacy of production loans, conversion of revolving marketing loan into short-term production loans, poor repayment, government policy of exemption of loan from time to time are some of the problems found to have adversely affected the functioning of the cooperative institutions.²⁸

5. Comprehensive Village Development Programme: An Allround Approach

Background :

During the second Five Year Plan formulation, it was realised that mere sectoral and project approach dealing with single aspect of rural development (e.g. green revolution or credit co-operatives) was not adequate in bringing about overall socio-economic development of the rural Bangladesh. What was needed, was a comprehensive approach to rural development which

27. Islam, M.M., *ibid.*

28. Rahman, A.M.M., *ibid.*

would incorporate various components dealing with a number of different aspects of rural wellbeing like production infrastructure and social services. Appropriate rural institutional structure in the form of "Gram Sarker" or village Government was thought to be created within the hierarchical system of local government with a view to undertake such comprehensive rural development. Alongwith the constitution of such village governments, complete restructuring of cooperative system was thought of by bringing the entire country under one type of co-operative system, in place of the existing dual system of co-operatives under both BRDB and department of co-operatives. But such reorganisation did not materialise due to change in the political system. 29

Concept:

The current plan period conceived another programme, namely Comprehensive Village Development (CVDP), to be taken up experimentally with the objectives of increased production, employment, social upliftment and equitable distribution of benefits based on local level planning and implementation within a common institutional framework. Comprehensive Village Development Co-operative Societies (CVDCs) covering all the villagers - adult males, females and children were considered to be the appropriate institutional structure for planning and implementation of the programme. These CVDCs, it was planned would be developed into economically viable and self reliant

29. Planning Commission, The second Five Year Plan (1980-85), Government of the People's Republic of Bangladesh, May 1980, p. vii 1-16.

institutions by means of resource mobilisation and commercial/business activities with the co-operative discipline. The existing co-operative societies and informal groups in the village, it was thought, would be gradually amalgamated with CVDCs. The CVDCs was planned to have two-way linkages. Firstly, it was decided that these CVDCs would be federated to an existing Central Co-operative Association at upazila level within the co-operative system; and, secondly, it would also be linked to the local government bodies at different tiers of the upazila for the purpose of development of common village facilities and services.³⁰ Specific projects were decided to be developed at the national level for implementation of the above experimental comprehensive village development programme. Initially it was taken up in four upazilas of four districts, one in each division. The responsibility of implementing the experimental project had been vested on BARD, Comilla and RDA, Bogra.

The Experiment :

The Bangladesh Academy of Rural Development at Comilla, in fact launched the project in their social laboratory area way back in 1983. Seeing the encouraging results in the project area, the Bangladesh Government decided to broadbase it further during the fourth plan period. The programme though entered into second phase, is still in its experimentation stage and no conclusive evidence could be drawn about its merits and demerits.

30. Planning Commission The Fourth Five Year Plan : 1990-95,
ibid, p. VF 3-10.

However, during the initial phase of experimentation, need for strong linkages with the institutions, both government and non-government had been felt very important. If the programme fails to get the support of the various line ministries to the cooperative institution, success will remain elusive. In this context, the back up of policy directions and commitment on the part of the Government will be of utmost importance. Also, the amalgamation of various types of cooperatives and informal groups under the purview of single society remains a challenging task, as the concept of comprehensive institution building is-yet to become very clear to the people.³¹

6. Food Assisted Infrastructusre Development Programme:

Rural Works Programme (RWP) :

The Rural Works Programme, again as a legacy of Comilla experiment initiated in the Sixties, became one of the major institutional intervention in rural development for infrastructure development. Originally, the programme was based on the principle of participatory development through mobilisation of local resources and local leadership to initiate a process of local level planning. The whole process aimed at generating employment opportunities for building rural infrastrctur capable of boosting up agricultural production. The basic focus on self-help however got lost, when the Programme

31. Obaidullah, A.K.M., "Comprehensive Village Development Programme (CVDP) - An Approach for Rural Development, paper presented to the International Seminar on Rural Development in Bangladesh : Experience and Strategies, held at BARD, Comilla Bangladesh during January 15-17, 1992.

was adopted by the government for wider replication, primarily as a method of promotion of wage employment among the landless. The major components of the Rural Works Programme was conceived to be: (a) construction of roads, bridges and culverts; (b) thana irrigation programme; (c) reclamation of derelict tanks; (d) thana training and development centre and (e) programme for development of important rural hats and bazars.³² While these constituted the normal rural works Programme, several other schemes were also subsequently incorporated under the banner of RWP. They were four District Special Public Works Programme (SPWP), covering Dhaka, Sylhet, Rajshahi and Jessore. The ultimate objective of this programme was to build up the capabilities within the government for formulation and implementation of labour intensive public works schemes, aiming at promotion of rural employment on a mass scale. Secondly, the Intensive Rural Works Programme (IRWP), covering 100 Thanas was initiated in famine affected areas with the main objective of building up infrastructure for flood protection, drainage and irrigation. Besides these, all the area development projects like RD-1, SIRDP, NIRDP had rural works components.³³

32. Haque, A.T.M.S. "Rural Works Programme and Food for Works Programme in Bangladesh" in Report of the Workshop on Poverty-Focused Rural Developments and Small Farmer Credit, (Vol II), Commonwealth Secretariat, London, 1982 pp. 137-138.

33. Planning Commission, The Second Five Year Plan(1980-85), Government of the People's Republic of Bangladesh, May 1980, p. XII 101-103.

Food for Works Programme (FFWP)

In the wake of flood and famine during 1974, a Food for Works Programme (FFWP) was initiated, recognising the need for employment generation to help people come out of the crisis. It was initiated as a programme under the Ministry of Relief and Rehabilitation with food aid provided by the World Food Programme (WFP), PL480 and other donors. Following the similar planning and implementation procedure of RWP, it differed only in the question of remunerating people against their labour. While schemes under RWP were generally paying the labour wages in cash, those under FFWP was paying in the forms of wheat received through the aid agencies. Gradually, the programme enlarged in size.

Duplication of efforts :

The ministry of Relief and Rehabilitation (MRR) has been the co-ordinator of FFWP since its inception. But with the allocation of a total quantity of 50,000 tones of wheat to the ministry of Local Government, Rural Development and Co-operative (MLGRDC), the FFWP is also being implemented by them. Besides, the MRR and MLGRDC, other sponsoring agencies like Bangladesh water Development Board (BWDB), Ministry of Fisheries and Livestock, Bangladesh Agriculture Development Corporation (BADC) and Forest department have also been taking up FFWP. As a result, in many cases it led to duplication of effort as well as created confusion. For example, canal digging was being undertaken under the National Canal Digging Programme, RWP, MRR, BWDB. The

consequence of such duplication were wastage of resources and increase in overhead cost of implementation of development activities, which a poor country like Bangladesh can hardly afford.

Constraints :

Mismanagement :

Inspite of its contribution in generating employment to rural poor, deficiencies of FFWP were found to be too many. Some of them are misappropriation of foodgrains, under-payment to the labour, inadequate maintenance of records of project committees and field officers, payment of wages in cash instead of foodgrains, non-display of project signboards, distribution of inferior quality of foodgrains to the labourers etc.³⁴

Lack of Nodal Agency :

Political and administrative will many a times have seriously affected the programme. During the third five year plan, the government introduced new pattern of democratic decentralisation by introducing upazila system, thereby bringing in several politico- bureaucratic dimension to the RWP and FFW. The fourth plan, however, intends to implement both FFW and VGD programmes in a more coordinated manner keeping its linkage with upazilas and integration of multi-sectoral development programmes, using food resources with annual upazila development plan. With the assumption of power by a democratically elected Government, scope of popular participation at the grassroots level, though widened, the recent change, at upazila level may create confusion

34. Haque, A.T.M.S. Ibid p. 42

and negative impact on normal flow of activities under FFW and RWP.³⁵

Although some short term benefits have resulted out of these programmes, the long term sustainability of the projects are under serious doubt due to several operational problems cropping up.

- (1) Underpayment of FFW beneficiaries are increasing gradually, with several other procedural irregularities leading toward leakage.
- (2) Eventhough the decision regarding projects should be taken by the U.P. Chairman as a member of Upazila Parishad, in practice the UNO takes the decision and get it passed in the meeting. Such situation has now been institutionalised by way of abolition of upazila Parishad.
- (3) Absence of any formal institutional framework for the routine and periodic maintenance of rural infrastructure except under sporadic NGO initiative.
- (4) Multifarious organisations' efforts at upazila level, specially in respect of RMP are not coordinated.
- (5) FFW is acting as a powerful instrument to keep the ruling political parties in power
- (6) The FFW projects, by their very nature create problem for the bureaucracy to keep track of innumerable schemes at the village level. The local government institutions lack commitment for organising the programme in a need based way.
- (7) The participation of the rural poor in RWP never raised beyond those of labourer. None was involved in project planning or project committee. Infrastructure programmes thus benefited only the richer class of people.³⁶

35. Rahman, M.M. "An Evaluation of the food Assisted Programmes in Bangladesh with Special Reference to the Rural Works Programme (RWP) and Food for Work (FW) programme", paper presented in the International Seminar on Rural Development in Bangladesh : Strategies and Experience held at BARD, Comilla, Bangladesh during January 15-17, 1992.

36. Op. cit.

Thus, the very purpose of Food Aid Programmes for developing a sustainable rural economy gets lost and the country will have to pay dearly in the long run. In order to set the corrective procedure, more effective local level participation in deciding on the schemes, their implementation through more intensive local organisations, capacity building by way of training is needed.

7. NGOs in Rural Development - A Major Institutional Intervention **Background :**

The major focus of most of the developmental interventions in a welfare state has been invariably on securing participation of the people in various programme activities. People's participation attains a new dimension when it comes to the mandate of almost all the developing countries' planned attempts at poverty alleviation. The success of rural development specially is judged in terms of its effectiveness in removing, poverty, the most widespread problem among all. In Bangladesh rural development efforts, the people's participation was most notably the component of the Comilla model, described earlier. However, attempts of its quick replication and sectoral programmes by various nationbuilding departments ran into problems of coordination, inequitable distribution and subsequent failure of retaining popular participation. In the wake of liberation war, a new front was opened in the vistas of Bangladesh rural development, with the entry of a number of foreign NGOs or donor supported NGOs in later years following an approach of conscientisation and target group orientation in programme development.

The NGOs, because of their sharply focussed programmes, technical assistance and debureaucratized approach, have in many cases performed better than the government organisations, although they were hardly cost effective, in view of their micro level coverage. Thus, it is indeed difficult to say conclusively, the impact of these NGOs at macrolevel of rural development.³⁷

The large scale operation of NGOs under the donor patronisation have raised the criticism of strengthening the local and urban power elites with the failure of developing indigenous leadership at the grassroots level for the disadvantaged, despite all claims of conscientisation. Two decades of NGO activity are said to have succeeded only in programme delivery but not in developing self-reliance. The combined impact of RWP, FFWP or VGD for non-farm employment generation is more than the total impact of NGO activity accounting for about 12% of the aid inflow.³⁸

Nevertheless, a number of NGOs have done commendable work, specially in drawing the public attention to the health needs in rural areas as well as environmental consciousness. NGO as a pressure group and link between Government and people have also proved their mettle. Thus, a better coordination between the Government and the NGOs, effective integration of sectoral

37. Report of the Task Force on Bangladesh Development Strategies for the 1990s : Policies for Development (volume one), *ibid*, pp. 210-211.

38. *Op. cit.*

components at the union level and the proven people centred NGO approach and involving them in environmental impact assessment may be some of the areas of collaboration.

The NGOs in Bangladesh which are involved in a number of sectors of rural development, enjoy relative advantage over the Government agencies in respect of their access to remote areas with a batch of dedicated and committed field workers. The government on the otherhand due to its bureaucratic, slow, power structured approach and extensive coverage cannot match in establishing such intensive contact with the people, like the NGOs. So, the perquisites for any effective Govt.-NGO collaboration to take place are, mutual trust and respect, facilitated by higher degree of openness; institutionalization of the communication linkage between the two sectors; willingness on the part of the Govt. functionaries to utilise the services of NGOs to reach out to the people; willingness to learn from successful NGO models.³⁹

Once such spirit of mutuality is reached, effective collaboration can be established in organising and educating grassroot groups, pooling of village based microlevel information in the development planning, experimenting with pilot development projects in partnership with specific government agencies etc. NGOs can also be involved in monitoring and evaluation of

39. Sultan, K.M.T. "Partners in Rural Development : Government NGO Collaboration" paper presented in the International Seminar on Rural Development in Bangladesh : Strategies and Experiences, held at BARD, Comilla, Bangladesh, during January 15-17, 1992.

government sponsored projects, while the government agencies can evaluate some of the NGO's projects. One very important area of NGOs' collaboration with the Government lies in handing over the completed projects to the NGOs for maintenance and management with the help of the people's organisation. For all such collaborative efforts to succeed, the key word is accessibility. While NGO Bureau and Association of Development Agencies in Bangladesh (ADAB) are the two nodal agencies, a more effective and regular linkage between the two, will open up more effective collaboration. Thus, through more effective networking, both vertical and horizontal, the NGOs can help the government in formulating more pragmatic policy of actions for national development.⁴⁰

Summing UP

The experiences of institutional interventions of facilitate rural development had brought home certain significant observations in the context of overall goal of national development process.

- O Some of the interventions like the Comilla experiment very forcefully indicated the possibility of increasing agricultural productivity by way of tackling the problems of technology, inputs, extension, training in an integrated manners. But from the question of equity, it failed to reach poorest of the poor, the single largest majority in the villages. However, the programme never claimed to have taken this group as mandatory in their approach. In spite of its success as an integrated project, while replicating throughout the country, individual components were given to different nation-building agencies showing lack of political and administrative commitment. This greatly altered its

40. Op. cit.

character. The basic issue of self-reliance, essential for sustainability was put into the background and beneficiary orientation crept in, thereby bringing in dependence syndrome.

- 0 The infrastructure building programme of RWP, an essential component of Comilla model was playing important role in increasing agricultural productivity through creation of employment opportunities by way of developing productive assets. The complementarity was lost when it was taken out. As a result, it became more a relief-oriented programme, which could help people survive, but definitely not progress. So, apparently, the RWP or FFWP eventhough attempted to facilitate equity, it did not have much impact in creating an atmosphere of optimism through their contribution toward self-sustaining development efforts. In order to be sustainable, plan should be made to create productive infrastructure and link them with productive activities.
- 0 The V-AID, eventhough created its impact by being the first ever institutional intervention in reaching out people, did not last long for want of political commitment and mechanism of facilitating coordination which was so very vital for its effective functioning.
- 0 The cooperative institutions, by being dominated by elites, has lost its major mandate of equity. Its relegation as merely credit organisations, has removed it from its major role of organising people for productive endeavor. Moreover, in the absence of any unified approach the major issue of cooperative discipline is at stake.
- 0 In the light of such dualism cooperatives and rivalry between cooperatives under various control systems, the mooting of the ides of unified cooperatives under Comprehensive Village Development Programme is laudable. Although still at experimental stage, success and sustainability of the approach will largely depend on political will and administrative commitment to create an organization which will function for the development of the rural life as a whole.

II TECHNOLOGICAL INTERVENTIONS

In order to meet the challenges of rural development by way of increased food production, slowing the rate of population growth and raising rural income and employment, technological interventions of various kinds are of supreme importance.

Bangladesh in her effort to meet these challenges also had adopted

several technological measures. They relate to various land based productive activities, health, nutrition and family planning as well as halting the ever increasing trend of environmental degradation. A critical look at the strategies followed and their constraints will lead one to the needed actions.

1. **Crop Technologies, Agricultural Research and Extension for Increased Productivity:**

Bangladesh signifies typical agrarian economy. Despite the gradually declining contribution of the Agricultural sector in GDP from 60 percent in early seventies to 40 percent in 1989-90, it still employs nearly sixty percent of the total labour force in the country. Crop based agriculture accounts for about forty percent of the national output, out of which rice alone contributes more than forty percent. So, agricultural production performance, particularly in the food production front, play a significant role in attainment of macro-economic objectives like employment generation, poverty alleviation, human resource development and food security.

Food Security - a formidable challenge

In spite of significant improvement in foodgrains production since liberation, the vulnerability of the agriculture sector to floods and other natural calamities still haunts the country. Social and economic stability of the country to a great extent depends upon her ability to generate a food surplus and to provide adequate nutrition for its ever increasing population. The per capita daily calorie supply to the population

still now is only 1930 against the minimum of 2200 calorie, prescribed by the nutritionists. Even at this lower than minimum level of consumption, Bangladesh requires to import more than three million tonnes of cereal alone, which consumes about 46 percent of the international aid Bangladesh receives, mostly in the form of soft loan.⁴¹ Thus, the challenge of ensuring an element of food security is formidable, both economically and socially.

The primary emphasis of agricultural development efforts in the process of meeting this challenge has been so far to replace the traditional agriculture by a modern and more stable agriculture capable of sustained growth. The main focus of such strategy was on rapid expansion of irrigation-fertilizer-seed technology. Under such strategy although the country made considerable strides in foodgrains production, self-sufficiency still remains a far cry due to very rapid population growth. While the trend rate of growth of foodgrain output came down to 2.2 percent during eighties, the population growth rate during trienium ending in the eighties remained steady at 2.7 percent. If potential growth rates in agriculture are to be met, and if other related objectives- agricultural diversification, adequate nutrition and rural employment growth are to be achieved, more difficult issues have to be addressed with top most priority.

41. United Nations "Human Development Report 1991, UNDP, Oxford University Press, p. 145.

(i) Water Development

Despite major investments in water development, there remains a huge untapped potential. Coverage of low cost drainage and flood control could be raised from 15 percent of inland cultivable areas to 35-40% and irrigation from 22 percent of cultivated area to at least 50 percent.⁴² The draft National Water Plan completed in July 1985, provided a good framework for the strategy required. Achieving these targets and more importantly, generating the related growth in agricultural output will require progress in two related areas.

Firstly implementation of the minor irrigations programme has to be improved. Expansion of minor irrigation, the major vehicle of development during eighties, accounted for over 60% of crop production. It was facilitated by a rapid growth in fielding of shallow tube-wells by private dealers in the early eighties. But subsequently there was serious slump in sales due to a combination of factors, including difficulties in farmers' group formation, inadequate groundwater information lower, credit availability, lack of clarity about the relative roles of the private and public sector, uncertainty concerning the pricing and rental policy and reduced incentives to farmers due to relatively lower output prices.⁴³ There has been an attempt of addressing to these problems by privatisation of the functions of BADC, the

42. National Water Plan, Draft Final Report, July 1985.

43. World Bank, "Banqladesh: Promoting Higher Growth and Human Development," Washington D.C. 1987 p. 56.

institution created for this purpose. In additions, the subsidies on sales and rentals of equipment are also being attempted to be rationalised to improve the efficiency.

Secondly, the efficiency of investment on minor origination also needs to be raised. Average investment costs of water development are much higher than they need be. The average command area for irrigation equipment is only about 35% of its potential, indicating great inefficiency. Expanding command areas by way of increasing efficiency on the part of 300,000 farmers, the efforts of the nodal agency, BRDB, needs to be geared up considerably.⁴⁴

(ii) Rainfed Crop Development

Due to the extensive and high profile work being undertaken in the water sector and the lack of corresponding efforts on rainfed crops by the agricultural development agencies tended to biased attention and expenditure towards the irrigated crop sectors, that too specially on paddy and to a marginal extent on wheat. As a result, individual crop yields for most rainfed crops remained virtually stagnant over the past decade and the acreage under these crops have been declining because of low profitability and competition with irrigated food crops.

The potential for progress is however, very impressive. The introduction of input responsive high yielding varieties for wet season cropping can double average yields. While the proportion of

44. Op. cit

cereals produced using HYVs had risen from 8% to 16% till the end of the last decade, the potential is estimated at 50% under existing conditions (and 80% with full development of flood control and irrigation).⁴⁵ In addition, there is scope for crop intensification through dry season cultivation of low water intensive crops, especially during the winter or early summer months. Realization of these potentials requires an expanded emphasis on research and extension services on rainfed areas, and on developing and disseminating improved varieties and practices for non-cereals crops (pulses, vegetables, oilseeds as well as sugarcane and cotton) Their potential for growth without requiring expensive investments in irrigation are high- the rapid past growth of wheat cultivation, 50% of which is non-irrigated, is an example.

The fertilizer use in rainfed areas has remained low as compared to irrigated tracts due to obvious reasons. However about one-third of the expansion in fertilizer use is attributable to diffusion of fertilizer use in HYVs in the rainfed tract of Bangladesh. But the potential for further rapid expansion is high, since one-third to one-half of local variety of crops (covering some 80% rainfed crops) are still not treated with fertilizer, and average fertilizer application rates are half the recommended levels.⁴⁶ Research and extension activities need to redirect efforts towards efficient fertilizer use in

45. Op. cit

46. Op. cit.

rainfed crops and areas, including addressing local agro-economic constraints and micro-nutrient deficiencies. Supply of good quality seed may also be another major constraint, since only 5% of seeds used by the farmers are certified, and only one-third of desirable quality. Private investment in the seed industry need to be encouraged with appropriate policy support.

(iii) More Efficient Agricultural Institutions:

As the agriculture sector grows and diversifies, the role of the public institutions charged with serving the sector, should gear up their efforts so that the farming population are provided with the best possible service at the lowest cost. Currently, there is enough scope of improving efficiency of the major agricultural support institutions like BWDB (for surface water), BRDB (cooperative, credits, Irrigation Management Programme), BADC (Input supply), Agricultural Research Institutes (Bangladesh Agricultural Research Council and its affiliate) and the extension service. Emphasis should be given in defining priorities and desirable shifts in current activities, and identifying managerial and staffing constraints and in providing an appropriate incentive framework for staff motivations.

For sustained growth in agricultural production and productivity, the fourth plan document identified certain constraints to be tackled in the crop based agriculture. They relate to improper land use and price policy, inadequate access to support and institutional services, lack of research-extension-farmers linkages and improper agrarian relations etc.⁴⁷

In order to remove such constraints and build up a sound agricultural economy, the planned strategy was placed on three basic foundations: a productive technology package, efficient delivery services and remunerative and stable market prices. For such a strategy to be functional, effective integration of research-extension and support services is required.

(iv) Need for Responsive Agricultural Research

Bangladesh agricultural research is being carried out by several institutes in their respective areas with general lack of integration with focus on multi-crop research programme. Agricultural research, to be really effective, should be able to consolidate the findings so as to suggest solutions to the complex set of problems of the farmers. It is not enough to suggest crop technologies in isolation of the demands of the farming system as a whole. Thus, agricultural research should develop and refine farming systems research by taking into consideration various components of the farming systems available across the country according to the agro-ecological characteristics. Once the research system can come out with such technological packages, the extension system should be able to carry them to the relevant farming population with necessary support system interventions like credit, input supply, pricing, marketing and processing etc.

47. Planning Commission, The Fourth Five Year Plan (1990-95)
Ibid. p. VA 2-3.

Alongwith this, the agricultural research should gear up their activities to explore possibilities of increased production through new options like bio-technology-an approach holding lot of promise for evolving improved crop varieties with dramatically higher yield potential.

Thus the strategy for agricultural research should be integration of activities of multifarious research organisations operating in the country, organising research endeavours on the lines of farming systems as a whole to ensure sustainability of the technological packages, develop research methodology to maximise the yield potential of various crops by way of removal of constraints as well as adoption of new techniques like bio-technology and above all introducing an effective management mechanism in the research system ensuring smooth functioning for the interest of highest degree of professional achievement by the scientists.

(v) Backup Support from Efficient Agricultural Extension System:

The agricultural extension system in Bangladesh is composed of a dozen government and non-government organisation, of which the department of Agricultural Extension(DAE) is the largest and most important. In an effort to increase the effectiveness of the agricultural extension services, World Bank aided Training and Visit System (T&V) of Extension was introduced across the country in 1982. While the system has definitely proved to be a more efficient method of dissemination of information, studies indicated its concentration mostly on the educated and large farmers with a general neglect of the resource poor farmers.

Moreover, the sole concentration on information dissemination in T & V system have in many cases neglected the importance of input supply which was so long with the public sector and are being gradually privatised. In the absence of interservice linkages and lack of co-ordination, the extension system of Bangladesh could not become effective. Hence the T & V mechanism should evolve more effective method of interagency linkages between the DAE, the public sector agencies like BRDB, BADCO etc., as well as the NGOs and other private agencies operating at the grassroots level.⁴⁸

Due to the predominance of resource poor farmers in the agricultural population of Bangladesh, who are operating under resource constraints at individual level, the extension system should pay more attention in organising them around groups to improve their absorptive capacities. In this context, it may be worthwhile to examine the relevance of ideas of training such groups of resource poor farmers besides the production technologies, income earning skills of raising seeds, producing horticultural plant materials through budding, grafting or air layering, vaccinating livestock or even raising of fish fingerlings and linking the groups with institutional credit.⁴⁹

Lastly, the crop oriented approach of the Agricultural Extension System is to be carefully evaluated as an effective

48. Hassanullah, M. "Removing Constraints from the Agricultural Extension System of Bangladesh - A Policy Brief, Bangladesh Journal of Political Economy, Vol. 10(3), 1990.

49. Op. cit.

means of advising the farming population on production technologies on the lines of farming systems approach. Thus broadbasing of the extension system becomes imperative necessity to meet the challenges of agricultural development during the coming days.

Thus the major thrust for sustained agricultural development of Bangladesh appears to be broadbasing of the production base by providing technological options suitable to the agro-ecological and socio-economic diversity across the country. The crop based agriculture, a part of the total farming enterprise, thus need to be diversified to make them more labour intensive and at the same time more profitable. The constraints of limited local marketing, low and fluctuating prices should be removed through appropriate institutional interventions.

2. Livestock Production in Bangladesh

Livestock is an integral component of Bangladesh farming system. It provides the major part of draught power required for cultivation and rural transport, while animal excreta are important source of organic manure as well as energy in the rural areas. Big cattles like cow or Buffaloes are also used for post harvest operations like threshing, crushing etc. Livestock products form an important component of food in the form of meat, milk and eggs. The skins and hides help in cash income for the country. Livestock's contribution has been estimated to 3% of total GDP. However, at present, the country has been facing a serious crisis of shortage of draught power to

meet the growing demand of intensive cultivation. An estimate of the draft power shortfall in 1985 puts the figure at 22% of annual requirements and 37% during the peck season.⁵⁰

The per capita perday availability of animal protein in the country from domestic livestock sources has declined from an estimated 2.03 gm to 1.82 gm over 1977-87 period.⁵¹

There are different estimates of milk production in the country made by the Planning Commission and World Bank. While the former estimated the annual production of 1326 tonnes during 1985-90 with a 1.77 percent increase, the World Bank used the same figure of 800 thousand tonnes of cow milk and 28 thousand tonnes of buffalo milk for 1981 as well as 1987. But the fact remains that the milk production has been deficit in the country and import of milk powder is made to a considerable extent to bridge the gap.

In case of eggs (both chicken and duck), a very small percentage is produced commercially. The total production of eggs in the country during 1989-90 has been reported to be 1910 million, which again is constrained by high mortality and worm infestation, high cost of balanced feed, non-availability of breed stock and poor participation of farmers.⁵²

50. Report of the Task Force on Bangladesh Development Strategies for the Nineties: Environment and Development, (Vol. 4), University Press Limited, Dhaka, 1991.

51. Nuruzzaman, A.K.M. "Fisheries and Livestock Development Strategies for Bangladesh" Paper Presented in the International Seminar on Rural Development in Bangladesh: Strategies and Experiences held at BARD, Comilla during January 15-17, 1992.

52. Planning Commission, The Fourth Five Year Plan(1985-90) ibid, p. v.d-182.

Constraints:

There are number of constraints facing the livestock sector which hinders the growth to any considerable extent. Some of the more important needing immediate attention of the policy makers are:

(i) Poor breed quality:

All cattle in Bangladesh, both cows and buffaloes are indigenous with very small size, slow growth and poor milk productivity. The state of health of the animals is extremely poor, veterinary coverage is totally inadequate and effort of improvement of breed quality through artificial insemination is insignificant. Similar situation prevails in other sectors of livestock production.

(2) Shortage of feed and fodder:

In the recent past, alongwith the introduction of high yielding varieties of paddy, conversion of traditional grazing lands into crop lands, depletion in quality and quantity of dry fodder have contributed to acute shortage of fodder for the cattle. Such deficit has been quantified to 13% of dry matter, 14% of total digestible nutrient and 48% of digestible crude protein allowing 37% loss of straw for domestic fuel and other purposes.⁵³

(3) Poor Management System:

The prevalent livestock management system has been a major constraint. As the livestock is still now a household endeavour, rather than commercial one, it is taken up either as a supportive activity for crop production or as a subsidiary activity for increasing family income. There has been very little research to introduce appropriate and more efficient technology for improving livestock production. Adequate support services are also not available for input supply, health cover and marketing of livestock products in the country.

Keeping the constraints in view, the fourth plan document envisaged a series of actions to improve the livestock sector. The major interventions planned during the period are:

53. Dickey, J.R. and Huque, Q.M.E Status of the Bangladesh Livestock Industry in Relation to Fodder Supply and Consumption of Animal Products, BARC, 1986.

- (1) Genetic upgrading and avoidance of genetic erosion with emphasis on selection of exotic breeds.
- (2) Improved health cover with encouraging participation of farmer in administering prophylactic and routine treatment of infectious diseases and parasitic infection in livestock.
- (3) Emphasis on non-ruminant livestock which subsist on a more concentrated intake with advantages of better feed conversions.
- (4) Emphasis on Poultry husbandry as a value added activity capable of operating in small units with significant labour absorption and poverty alleviation potentials.
- (5) increased fodder supply
- (6) Encouraging domestic dairy industries
- (7) Organising responsive support services in the form of marketing, pricing, extension back-up, education and manpower training for livestock sector development.
- (8) Generation of employment opportunity for men, women and youth in the rural areas through dairy farming, cattle and poultry rearing.

Activities have been planned according to these areas of interventions, which are likely to produce results in terms of improvement in the livestock sector.

3. Fisheries Development

In order to support a growing fisheries sector, the natural resources in Bangladesh are abundant. More than one million hectare of perennial water bodies and over three million hectares of flood plains provide an extensive and highly fertile area suited to inland fish production, while some four million hectares of coastal and offshore water body provides the area for production and stocking to support marine fisheries. In spite of such resources, the fish production during 1983-84 to 1987-88 had grown at the rate of 2.4% per annum with highly varied trend of subsector growth.

Inland Fisheries :

Out of the total fish production during 1987-'88, 72.5% came from inland fisheries and the rest from marine fisheries. About 71 percent of the inland fisheries production came from open water capture fisheries and remaining 29 percent from culture fisheries in closed water bodies.⁵⁴ Open water fisheries, however, are not expected to support a substantial increase in inland fish production because of overfishing and depletion of natural stocks, and continued expansion of drainage and flood control facilities. The biggest potential, thus exists for intensive aquaculture in ponds (a little more than 3 percent of inland fisheries area), but more importantly, in larger inland water bodies, including irrigation tanks, "baors" (old river beds) and independent and smaller drainage basins with controllable water regimes which have been formed as a result of drainage and flood control and irrigation projects. The combined areas of these water bodies will be potentially upto 0.5 million hectare, capable of producing about 100,000 tones of fish annually. Intensification of pond aquaculture also offers large scope for growth. The current yield rate of 300-700 kg per hectare, with application of modern technology can easily be quadrupled, thereby providing an incremental production of 100,000-300,000 tones per year.⁵⁵

54. Nuruzzaman, A.K.M. "Fisheries and Livestock Development Strategies for Bangladesh, *ibid*.

55. World Bank, Bangladesh : Promoting Higher Growth and Human Development, *ibid*, p. 58-59.

Coastal Aquaculture :

The coastal brackish water shrimp farming has already considerably developed and offers excellent scope for rapid growth based on intensive aquaculture practices and favourable export demand. A successful conversion of current low-yielding trapping activities into high yielding extensive and semi-intensive operations would raise export quality shrimp production fourfold.

Marine Fisheries :

The marine fisheries sector employs considerable proportion of small scale fishermen, contributing about 95 percent of total fish landing : Increasing the efficiency of this sector through improvement in the fishing gears and equipping the fishing boats with engines and introducing post harvest technology for curing and drying of fish and above all providing better marketing support are of utmost importance.

Constraints :

The major constraints in developing the various sub sectors in fisheries need immediate attention of the policy makers and planners of the country.

In order to promote culture fisheries, huge quantity of fingerlings will be needed. Hence, investment in hatcheries need to be made by encouraging private investors. The private water bodies need to be found out for such endeavor which have got multiple uses (jute retting, irrigation during dry season) and act as problem. The fishermen, farmers and villagers in general at present are unaware about the potentiality of practising

pisciculture in existing water bodies. The rapidly deteriorating environmental condition due to excessive pollutants and pesticide use in the existing water bodies and the flood control and irrigation projects are creating problems of fish breeding & growth and conservation of existing broodstocks 56

Other constraints identified are lack of organisation of fishermen. In Bangladesh, eventhough fishermen cooperatives have been formed under the general cooperative movement, they are being dominated by non-fishermen vested interests and as a result they are in the clutches of moneylenders and middlemen.⁵⁷

In coastal aquaculture, the shrimp farming is entirely dependent upon wild seeds which undergo colossal loss due to inappropriate handling, transportation and post-stocking practices. Limited technical knowledge of farmers and extension agents about scientific shrimp culture technologies and degradation of existing mangrove forests, a natural habitat for shrimps, are other forms of constraints affecting the shrimp industry in Bangladesh. Moreover absence of clear demarcation of areas for shrimp culture in the polders constructed for prevention of saline water intrusion into cultivable field do not encourage using these resources effectively for brackish water aquaculture.⁵⁸

56. Nuruzzaman, A.K.M. "Fisheries livestock Development Strategy" *ibid.*

57. Rahman, A.M.M. "General Cooperative Based Rural Development Efforts", *ibid.*

58. Nuruzzaman, A.K.M. "Fisheries and Livestock Development Strategy," *ibid.*

In marine fisheries sector, absence of information base on fisheries resources stock assessment, and their economic feasibility do not allow optimum exploitation of the resources. Shortage of landing site and economic use of trash fish resources are other problems. A number of issues affecting appropriate growth of fisheries sector have been highlighted. Lack of transfer of appropriate technologies, existence of multiple ownership and use of ponds, conflicts between various related agencies poor NGOs' involvement in fisheries sector, limited access of small scale fishermen to institutional credit and no control over number of fish processing plants are some issues which need immediate policy and action intervention.⁵⁹

In order to address to such issues, the fourth plan decided to concentrate on fisheries as a priority sector to generate additional employment opportunities and utilise it for poverty alleviation. A well defined land and water utilisation policy will be framed to identify appropriate water bodies in the country to promote pisciculture. All vested and public water bodies will be earmarked for aquaculture by distributing them on long term basis among local fisherfolk, landless and marginal farmers, unemployed youths etc. The credit institutions will be made more responsive to the needs of fisheries sector. preferential collateral free loan will be extended to the fishermen community to undertake fish farming activities.⁶⁰

59. Op cit.

60. Planning Commission, the fourth Five Year Plan (1985-90),
ibid.

4. Health, Nutrition and Family Planning :

Health :

In any civilised country access to health is a basic right. But Bangladesh presents a case of inequity in health care generally manifested in three different ways: first, rich can afford and avail better health care at home and abroad; second, urban areas are better serviced than rural areas; third, male avail of more health care facility than female. The dimensions of inequities have been identified to be awareness, availability, accessibility and affordability. So far as rural Bangladesh is concerned, according to one study, about two third of illness incidence in rural lower income category are treated with home remedy, leading to incapacitation as high as 40%. The extent of outside medicare for the lower income groups is very insignificant. 61

The ministry of Health and Family Planning is responsible for developing, coordinating and implementing the national health, maternal child health care and the family planning programmes. The governments' policy objective in the health sector has been to attain a goal of "Health for all by the year 2000" (HFA - 2000) and Primary Health Care (PHC) approach has been determined as the strategy for achieving this goal. This has been thought to be achieved primarily through the construction of health facilities in rural areas and training of health manpower. Infrastructure

61. Report of the Task Force on Bangladesh Development Strategies for the 1990s : Policies for Development, (Volume one), University Press Limited, Dhaka, 1991, p. 196.

development has included both rural hospitals and expansion of Union Health and Family Welfare Centres (UHFWCs), Thana Health Centres (THCs) and Rural Dispensaries (RDs) to provide out-patient care. Data shows that the percentage of coverage of unions, thanas and villages under the three programmes have been 2%, 66% and 13% of the total.⁶² Until recently, the programme has focussed on curative services, but the direction is now changing towards a larger role for preventive health care. Accordingly, the Third Five Year Plan promoted immunization, vitamin A distribution, treatment of diarrhoeal diseases and safe deliveries.

Constraints

The major constraints and deficiencies identified in the present health care system, specially relevant to rural health are as follows :

1. The facilities existing in the rural areas for health care is not utilised fully. The bed occupancy in the UHC remained restricted to 50-60%. Such data, when looked in conjunction with the result of the study reported in the beginning of this section, indicate lack of people's confidence in UHCs, owing to poor quality of care, inadequate drugs and supplies and poor managerial practices. Poor maintenance of facilities, inadequate community participation, incompetent supervision, and unwillingness of doctors to serve in the rural areas also contributed for the same.
2. The poor quality of health services were mainly due to inadequate management in health service delivery, inadequate supply of medicine and other support facility, absence of doctors, inadequate diagnostic and laboratory facilities, ineffective referral and follow up system etc.
3. The main deficiencies with regard to health manpower were paucity of personnel and lack of proper training. Data revealed the presence of staff nurse and doctors in the hospitals against the total number of approved posts to the

62. Op cit.

tune of 8.4 and 46.5 percent respectively. While this is the picture at the national level, the rural Bangladesh picture is much more grim.

4. Most of the UHCs and UHFWCs run short of essential physical and functional facilities. Sufficient budget allocation was not made for meeting the operating costs of these centres. As a result, full benefits from capital investments could not be achieved.

The Fourth Plan strategy for addressing such problems can be categorized into three different thrust areas:

- (a) Consolidation and further development of essential health infrastructure developed earlier.
- (b) Strengthening of quality, quantity and range of services based on the Primary Health Care approach including referral system. The Primary Health Care will be provided through a three tier system stated earlier.
- (c) Strengthening the management capacity of the health system to sustain and further develop services capability. 63

Nutrition Development Programme

Bangladesh suffers from some of the most severe malnutrition problems. The present per capita calorie intake around 1900 is much below the standard. Poverty, inequitable food distribution, diseases, population explosion compounded by social and cultural inequities contribute to malnutritions. Severe malnutrition exists among the landless and small and marginal farmers in the rural Bangladesh. Countrywide nutrition surveys and other studies indicate constantly deteriorating conditions of food intake and nutritional status of rural people.64

63. Planning Commission The Fourth Five Year Plan (1990-95),
ibid, p. XI. 6-7.

64. Quddus M.A., "Health, Nutrition, Sanitation and Population Programme in Bangladesh.

The effort made by the Ministry of Health and Family Planning to mitigate nutritional deficiencies in the rural areas, has been very limited, compared to the requirement. During the fourth plan, some of the programmes decided for vigorous implementation are : promotion of breast feeding, use of ORS for diarrhoeal diseases, nutritional surveillance, establishment of child nutrition centres at UHCs, blindness prevention, improvement of diet through Applied Nutrition Programme.

Nutrition being a multi-sectoral issue, its improvement will require coordination among various agencies. Other programmes having nutrition implication like Food-for-Work and Vulnerable Group Feeding Programmes are carried out under the ministry of Relief & Rehabilitation. But as pointed out earlier there is hardly any coordination among this agencies.

Family Planning :

Bangladesh with her 114 million population is the eighth largest country in the world in terms of size, though occupying only three thousandth part of the total global land area. It is maintaining almost a steady population growth rate of 2.7%. This has created an unfavorable demographic scenario frustrating the development efforts in the country. Eventhough there has been efforts towards enforcing family planning practices, the success rate in terms of Contraceptive Prevalence Rate (CRR) and Crude Birth Rate (CBR) remained restricted to 39.2 percent and 36.3 per thousand, much below the targetted 40 percent and 32 per thousand fixed for 1990.

Reasons for poor performance are varied and complex. They lie to a large extent in continued management and operational deficiencies, partly derived from the frequent shifts in administrative arrangements for service delivery which have disrupted the programme and have discouraged family Planning officers (FPOs). Other problems include poor supervision and accountability, lack of mechanism to make the system more efficient and inadequate supplies and logistics. Improved coordination of multi-sectoral programmes and activities to crystalize latent demand for family planning services are also needed. Stronger leadership of the Programme and community involvement, eventhough often mentioned as necessary ingredients for programme improvement, they are unlikely to materialise to any significant extent.

In order to achieve a sustainable policy of family planning in Bangladesh, the areas of concern deserving special mention are : (i) integration of health and family planning services for reasons of efficiency, cost-effectiveness and improved quality of care in family planning; (ii) administrative reorganisation to ensure better community involvement and promote accountability of workers; and (iii) improved service provisions in all social sectors. 65

However, improvements in the family planning services can not be expected to raise the CPR beyond any reasonable level, and

65. Report of the Task Forces on Bangladesh Development Strategies of the 1990s : Policies for Development, ibid, p.122.

any increase beyond that level calls for improvements in the quality of life of the people. With such improvements, people would themselves aspire for small family size, and hence adopt measures to limit their fertility. But the above strategies should continue to receive top most priority, as there would be a considerable time lag before their demographic impacts become discernible.

5. Environment and Rural Development

Bangladesh, eventhough endowed with nature's bounty in the form of fertile land, rich water resources, lushgreen vegetation and underground gas reserve, frequent natural calamities and high population pressure have started affecting her developmental efforts. Sustainability, is the key word of any developmental effort which means such a strategy enabling to meet the needs of the present population without compromising the ability of the future generations to meet their own needs.

Unsustainable Cropping Strategy

Unfortunately, heavy population pressure is one of the reason for Bangladesh to cross the limits of sustainability. To start with agriculture, the single largest productive endeavour, has been following an unsustainable strategy by way of intensive use of land with repeated cultivation of high yielding fertilizer responsive crop varieties. Depletion of essential nutrients and organic manure are making the soil sick as large areas are now becoming deficient of such nutrients.

Adverse Impact on Fish Production :

Similarly fish production in the flood plains of Bangladesh having great potential, has also been adversely affected by indiscriminate pesticide application, overfishing, industrial pollution and unplanned flood control, drainage and irrigation projects. ⁶⁶

Depleting Pasture/Grazing Lands

Large scale extension of high yielding varieties in hitherto grazing lands has created unprecedented fodder crisis, resulting into acute scarcity of draft animal for cultivation.

Biomass Crisis

Above all, rural Bangladesh has been facing acute crisis of biomass, the essential energy source, as a consequence of large scale deforestation. It is estimated that the contribution of traditional biomass fuel is only 17 percent, the rest being agricultural residues and cowdung, which otherwise could have become invaluable organic manure resource for the land. Only 61 percent of the forest under the control of Forest departments remains productive and the rest is either encroached, barren scrub or grasslands. Such deforestation leads to soil erosion and silting of river and reservoir beds.

66. Ahmed, S. "environment and Rural Development", paper presented in the International Seminar on Rural Development in Bangladesh : Strategies and Experiences held at BARD, Comilla, Bangladesh during January 15-17, 1992.

Global Warming

Unsustainable production strategies adopted globally, have contributed to global warming, affecting Bangladesh through climate change and rise in the sea level. The impact is being felt in the densely populated deltaic regions of Bangladesh, where substantial areas are barely above sea level and have become vulnerable to frequent natural calamities like floods, cyclones, droughts and tornadoes etc. The worst sufferer in all these cases are the hapless rural people. According to recent estimate, at this rate of global warming, the sea level rise may be about 20 cm higher by 2030 and about one meter by the end of the next century. One meter increase in sea level will inundate about 15.8% of total area of Bangladesh, displace 10% of the present population, destroy 13.7% of cropped land, denude 4 million hectares of mangrove forest and involve loss in output of 13 percent of GDP and loss of assets equivalent to 14 billion US dollars. Moreover the area of high salinity intrusion will increase from an existing area of 13 to 32 percent. Again the sufferer will be the people in the rural Bangladesh.

Unplanned Development Projects:

Sometimes, unplanned development projects under government initiative also lead towards environmental consequences like water pollution, fish habitat depletion, malnutrition and so on and so forth, increasing the sufferings of rural people. The bureaucratic top-down approach in such project planning has been responsible for such disaster. ⁶⁷

67. Op. cit.

In creating an environment consciousness while developing such project proposals the need for Environmental Impact Assessment (EIA) has been suggested to be made mandatory. At present in Bangladesh, lack of such analysis is prevalent. 68

Inappropriate Public Policy:

Public policy in deciding the developmental priorities also becomes sometimes responsible for influencing environmental impact. Misallocation of resources, lack of, provision of access to poor for resources like water, trees, arable lands and CPR or even pressure on natural resources beyond regenerative or assimilative capacities due to wrong policy prescriptions sometimes cause disbalance in the ecosystem. Similarly, favourable public policies in the form of poverty alleviation schemes like food for works programme, special credit programme by way of reducing the vulnerability of the poor to food dependence, may cause salutary effect on environment. 69

Only technocratic approach will not be able to solve the environmental problems. A closer look at the whole range of social, economic, cultural characteristics of the rural areas coupled with strategies for making people partners in development process only can help in facilitating a more sustainable environmental policy.

68. Op. cit.

69. Op. cit.

6. Rural Energy :

Bangladesh meets her energy requirement from commercial as well as non-commercial sources. But in the energy mix there is a predominance of non-commercial sources. Of the estimated total energy consumption in 1990, about 73 percent was received from non-commercial sources like agricultural residues and cattle dung. Major portion (64.8%) of this energy is consumed in domestic sector. The fuelwood is terribly in short supply.

Among the commercial sources of energy, Bangladesh is very rich in natural gas, which is the major indigenous energy in the country. Total reserve of natural gas is reported to be 13 trillion cubic feet (TCF), which at the present rate of consumption may last for another ninety years. Exploration and development of natural gas sub-sector has been heavily dependent on Technical Assistance and will continue to do so in the foreseeable future. Natural Gas is also being used for generation of electricity. The only hydropower in the country is located at Kaptai in the Chittagong hill tract. Coal deposits are available only in western Bangladesh. Petroleum products are almost entirely imported for meeting the domestic requirements.^{69a}

In view of such limited commercial energy reserve in the country and overdependence on non-commercial energy with its adverse consequences on the environment, it is extremely

69(a) Report of the Task Forces on Bangladesh Development Strategies for the 1990s : Policies for Development (Vol. one), *ibid.*, pp.256-257

important to resort to a judicious perspective planning in the energy sector by integrating both the energy sources. In this process, attention should be paid on evolving more efficient renewable energy sources for undertaking several activities, specially in the rural areas like agricultural and post harvest operations, domestic activities, rural industries etc.

Bangladesh at present does not have nay nodal agency for development and management of renewable energy sources. The fourth plan, although has spelt out certain strategy for this sector, more concerted actions are needed to augment the supply and use of these sources in rural areas.

For renewable rural energy programme, a co-ordinated effort of various sectors like policy planners , government departments, local government institutions, NGOs and local people is needed. People's participation in planning, implementation and management of rural renewable energy programme is of vital importance. Before deciding on appropriate kinds of technological options in rural energy, adaptive field trials are needed for making them relevant to the ecological and sociocultural milieu, in which they are to be absorbed. Existing employment generation programmes like RWP, RMP or FWP can be fruitfully utilised for generating renewable energy assets in the rural areas. These programmes are specially suited to the fuelwood production programmes. The seedling requirements of such Programme should preferably be met through decentralised nursery raising schemes. which can generate additional employment opportunities also in the countryside 69(b)

Summing Up:

The experiences of managing the technological interventions in deferent sectors of rural development programmes of Bangladesh have raised a number of observations which deserve attention for the future policy planners. These observations may be summarised as follows :

1. Agriculture development in Bangladesh has been almost exclusively irrigation intensive, with primarily cereal coop Based approach, that too mostly Paddy. This has neglected the rainfed crops as well as areas. While, large untapped potential of extension of irrigation exists, the rainfed crops require immediate policy attention for organising research and extension and crop diversification.
 2. A multiplicity of agricultural institutions need to be better coordinated for more efficient agricultural production strategy. At present they work without any integration of efforts, sometimes even in cross purposes.
 3. The Agricultural research system at present in the country consists of multi-crop research institutes without any effective coordination . In order to fulfill the fourth plan objective of productive technology package more integration and change in approach is needed. Adoption of farming systems approach and concentration on new frontiers like biotechnology may help the agricultural research a long way.
 4. The present extension support system is dominated by the department of Agricultural Extension (DAE). World Bank aided T&V system's concentration is mostly concentrated on resource-endowed farmers, with a general neglect of the resource poor. The input supply till recently in the hands of public sector, being gradually privatised, need to establish effective linkage among various agencies. The DAE's concentration only on crop technology dissemination needs careful review by broad basing it with the incorporation of other landbased activities like fisheries, livestock etc.
-
- 69b. Rahman, M. "Rural Energy Development", paper presented in the International Seminar on Rural Development in Bangladesh: Strategies and Experiences, held at BARD, Comilla, Bangladesh during January 15 - 17,

5. Due to rapid expansion of cropbased agriculture, the area under fodder and pasture lands are gradually shrinking with associated scarcity of fodder supply. This resulted into acute shortage of draft animal power.
6. The present breed distribution in the livestock sector is mostly indigenous, resulting into poor yield of produces of different kinds of animal products.
7. The livestock management system prevalent in the country is still indigenous, with lot of scope for technological upgradation.
8. Inland fisheries, the major component of Fisheries sector is confronted with the problems of lack of fingerlings, environmental pollution, unplanned construction of irrigation and flood control structures and poor organisational base of the fishermen .
9. While coastal aquaculture is becoming increasingly popular, unplanned expansion of fish processing industries donot allow optimum utilisation of their capacities.
10. Integration of shrimp cultivation with the expansion of polder technology for controlling salinity intrusion is needed.
11. Absence of information base on fisheries resources, and their dissemination is the major problem in marine fishers sector.
12. The rural health facilities remain underutilised, primarily for lack of confidence of people, poor quality of care, inadequate drugs, poor maintenance, unwillingness of doctors to serve in the rural areas and above all poor management of the services.
13. The major problems faced by the rural health services are paucity of personnel, large number of vacant positions, lack of budgetary provision for physical facilities etc.
14. The major dimensions of environmental problems facing, the rural sector are absence of sustainable cropping strategy and land use planning, taking up of development projects without any environmental impact assessment, less responsive public policy and lack of environmental awareness among all levels of people.
15. In the absence of integrated energy planning, overdependence on non-commercial sources of energy is causing rapid environmental degradation in the country. Exploitation of rural renewable energy technologies is of utmost importance to increase energy efficiency in the rural areas.

III DISADVANTAGED FOCUSSED INTERVENTIONS •

The incidence of poverty in Bangladesh is still much higher not only in respect of the fast-growing East Asian countries but also our South Asian neighbours. Sustained poverty alleviation programmes thus attains major significance. Bangladesh introduced a number of such projects under government and non-government initiatives. Besides, there are a number of other programmes aimed at disadvantaged categories. A critical analysis of such experiences will help to decide the future strategy.

1. Integrated Rural Development Programme :

In the process of increased food production attempts, the inadequacy of the resource poor farmers was recognised by way of their poor investment capacity in the input intensive production strategy. The Comilla experiment of organising farmers into cooperatives provided an institutional framework to introduce these on a large scale through group approach.

Change in Focus :

IRDP meant only two-tier Cooperative:

Based on the experiences and experimentation of Comilla model Integrated Rural Development Programme was launched in 1971. Although Comilla model was a package of four mutually supportive institutional, infrastructural and social development projects, only the two tier Co-operative came under the purview of the programme, leaving the other three for being implemented by other agencies of the government. Since the original concept of integration required implementation of the four interrelated

components within a common framework, such deviation narrowed the area of integration and judged by the original model of self-sustaining development, the IRDP in the present form became a misnomer. Nevertheless, the implementation of the two-tier cooperatives had an inbuilt mechanism of cooperation between a few agencies and in this way, it lent some justification to the nomenclature given to the Programme. The IRD programme was really a production-oriented strategy for accelerated production in food grains using the High Yielding Varieties technologies through the institutional framework of cooperatives.⁷⁰ It was assumed that the condition of the landless will improve through increased demand of agricultural labourers.

Incorporation of Resource Poor Group :

But subsequently the integrated rural development approach, at the behest of international donor agencies' perception became poverty focussed in most of the developing countries, implementing programmes of directed change. As a consequence, the focus of IRDP in Bangladesh was again changed in 1978 with the incorporation of landless and resource poor farmers, alongwith those having appreciable means of production. Proportionate representation of these categories was made mandatory in the managing committees. Primary cooperatives were made the nodal point for distribution of inputs and credit, supplied by the Government. The Thana Central Cooperative Association was to act as supporting organisation to promote primary cooperatives as self-managed bodies.

70. Hye, H.A., Integrated Approaches to Rural Development, The University Press Ltd. Dhaka, 1989, pp 88-89.

Expanded Role of the Cooperative Societies:

A much larger role of the Co-operative as compared to the Comilla experiment was envisaged by way of recommendation of (a) broader based village cooperatives comprising both land owners and landless, (b) self management and self reliance at the level of primary societies, (c) eventual transfer of banking and credit functions with own funds by the Central Association to Commercial Banks with only supervisory role of TCCA, (d) proportional representation in the management of the TCCA, (e) use of cooperatives for land redistribution in a land reform programme, mobilisation of unemployed labour for productive work and (f) management of machines and equipment by landless members of cooperative for incomeearning. 71

Rapid Expansion of Area and Coverage:

For being a nation-wide replication, IRDP deviated from the original Comilla model in many ways. Besides having taken only one component of the four system integrated model, the IRDP went ahead to cover as many Thanas as possible with very thinly distributed membership coverage. The TCCAs became involved in a big way in sale of seeds, fertilizer and irrigation equipment. Subsidy for irrigation equipment was given at a much higher rate. But such rapid expansion of IRDP interms of area as well as activity coverage did not commensurate with either the management supervision, or the resources in the form of credit,

71. Hye, H.A., "IRDP : Replication of an Experimental Project", Paper Presented in the International Seminar on Rural Development in Bangladesh : Strategies and Experiences, held at BARD, Comilla, Bangladesh during January 15-17, 1992.

irrigation equipment etc. Continuous training, an important component of TCCAS' activities of comilla model lost its significance and became stereotyped both in content and quality. As a result attendance in such programmes came down significantly.⁷²

Success:

Spread of Modern Irrigation Equipment:

But all said and done, the IRDP in Bangladesh achieved considerable success in many respects. It was very successful in spread of modern irrigation equipment. The recovery percentage of credit extended to TCCA/KSS system was among the best among all the agencies involved in rural credit.⁷²

Increase of Command Area :

The TCCA/KSS were also effective in increasing the Command area. Multiple agency approach to command area development using the TCCA as focal point, was quite successful in the pilot project on irrigation management. Although the impact in terms of food production was not readily discernible due to the absence of bench mark data, the indirect indicators of higher participation of TCCA/KSS Cooperators in irrigation (through ownership of irrigation equipment), crop credit mobilisation and technology adoption by the members help one to conclude that the contribution of IRDP cooperatives in increasing production from 10.2 million tonnes in 1974 to 13.4 million tonnes in 1980 was significant.

72. Op. cit.

Cost Intensiveness of IRDP-Review Needed :

The usual allegation of the IRDP being highly cost intensive in respect of higher administrative expenses, greater share of resources and infrastructure development as compared to the comilla model, needs to be carefully evaluated at by working out the unit cost per thana after taking into account the cost of necessary training and supervision for the project, incurred by comilla Academy in its jurisdiction. Cost per thana will be much lower in case of IRDP. Moreover, the IRDP, though in a modest way, introduced for the first time programme for landless.⁷³

However the programme has to accept the blame of having been dominator by the rural elites. The bias obviously was in respect of participation of elites in managing committees of the cooperative societies by way of which they could corner disproportionately large benefits. But one has to remember the fact that membership was open to the large farmers and hence equitable distribution could not be ensured in a basically inequitable structure of ownership.⁷⁴

The programme is considered to be still critically relevant to the Bangladesh environment, due to its predominantly small, fragmented holdings incompatible with the scale of irrigation technology; small individual credit needs in relation to the administrative ability of the credit system; small individual surpluses in relation to the effectiveness of GOB's price support

73. Op cit

74. Op cit

programme; overall shortage of domestic savings and a weak public sector dominated system of providing agricultural services. In order to make the IRDP more effective, a series of recommendations were made. Notable among them were : Unification of cooperatives at all levels; refocussing IRDP's task by allowing village cooperative to form around irrigation facilities only; restructuring of softer credit programmes of public sector banks to ensure stricter discipline. For administrative flexibility, autonomy in action, effective interagency consultation and to provide job security to promotional staff, IRDP should be registered as an autonomous board. 75

2. Grameen Bank - An Innovation

In the backdrop of generally accepted feature of failure to reach the rural poor through various kinds of rural development efforts, Grameen Bank attempted to exclusively focus its attention on this category with relatively more sensitivity to the hierarchy of their need perception: survival, security and self respect. Shortage of capital was identified as the single largest constraint in taking advantage of self-employment opportunities, specially in non-farm activities, relevant for them. As a result, the poor, particularly the women, fall prey to the money lenders who either take very high rate of interest against loans or offer very low wage rate against their labour. It was assumed that supply of capital at a reasonable

75. GOB, Bangladesh Integrated Rural Development Programme : A Joint Review by Government and the World Bank, Ministry of LGRD & C and External Resource Division, Ministry of Finance, 1989.

cost could transform the surplus labour of these poor into goods and services, bringing in new entitlements for them. Since the traditional financial institutions were not reaching them a strong ground was created for the Grameen Bank to cater to the rural poor's credit need.

Approach:

The special features of the Grameen Bank's credit activities are⁷⁶

- (1) Loans are provided without any collateral
- (2) Peer pressure act as collateral
- (3) Repayment of loan in weekly instalment
- (4) Preparatory training of group members before involving them in loan transactions
- (5) Mutual accountability among group members
- (6) Collective management of finance.

Besides these features, the key factor for the success achieved by the Grameen Bank is the tight supervision of the borrowers by a batch of highly motivated and committed field workers. A very intensive training of six months is offered to them, wherein they became exposed to the socio-economic as well as socio-personal realities of these groups of people, whom they are going to reach. Thus, the Grameen Banks' endeavour is to reach out essentially hardcore poor clientele group by providing an income generation avenue which will facilitate weekly repayment. Thus the saving component is inbuilt into the programme with a provision of incentive of repeat loans to the non-defaulters.

76. Rahman, A. "Rural Development from Below: Lessons Learned from Grameen Bank Experiences in Bangladesh," paper presented in the International Seminar on Rural Development in Bangladesh: Strategies a Experiences, held at BARD, Comilla, Bangladesh during January 15-17, 1992.

The highly decentralised management structure with the provision of shared authority with a strong central management is the uniqueness of the organisational feature of Grameen Bank. Debureaucratisation and flexibility with free flow of information are the functional characteristics of the organisation. A strong monitoring and evaluation unit to keep strict vigil on the various aspects of extension of credit, helps maintain the programme on correct path.

Limitations:

The Grameen Bank experience however has generated considerable enthusiasm among the professional academicians at national and international level. The organisation being open to evaluation, lot of studies regarding the replicability of the approach have been conducted. Some of them indicated that Grameen Bank can never be a panacea for eradication of poverty in Bangladesh. In view of its lack of integration with local level planning and inter-sectoral linkage, it will be difficult for this approach to confront the problem of poverty in any sustainable manner. Moreover, the policy of debureaucratisation followed in the management structure, although laudable, needs to be carefully evaluated under the overall atmosphere of increasing government control in the development programmes. The viability of Grameen Bank has been under scrutiny in view of its heavy dependence on concessionary financial assistance from donor agencies. Although they are trying to mobilise their internal resources by diversifying in various sectors, it is creating too much of pressure on their infrastructure. Lastly, the possibility

of retaining the high morale and motivation of the field workers without any provision of improved incentive structure also needs to be reviewed. 77

Thus the programme, although may not be replicable as a whole, has definitely generated some successful impact points like formation of small homogeneous groups for group, guarantee of loans and supervision of loan utilisation, recovery of loans in small regular instalments and institutions for collective savings, which could be emulated by the supervised credit institutions across different environments. 78

3. Small Farmers Development Project :

With, the signs of decay of the two-tier co-operative system developed at BARD, and replicated nation-wide by BRDB, the Academy initiated another project with the basic intention of helping the poorer section of the rural population to bring about their own socio-economic development. The Small Farmers Development Project (SFDP) aimed at organising the poorer segment of the rural population into groups which they termed as receiving system to enable them to absorb the benefits extended by the 'delivery system'. Individually, their limited resource capabilities do not allow them to utilise the facilities extended by the delivery system. Hence, the group mobilisation will

77. Op. cit.

78. Hussain, M., Credit for Alleviation of Rural Poverty : The Grameen Bank in Bangladesh, (Research Report No. 65), International Food Policy Research Institute, 1988.

provide them a greater bargaining power to have access to such facilities.

Approach :

According to the SFDP framework, a Field Action Programme (FAP) was initiated specifically aimed at the rural poor by organising them into functional groups. The FAP also influenced the delivery system to introduce some special measures for protecting the interest of the rural poor, so that they were able to participate in the IRDP.

From the methodology adopted to workout the project, similarity was evident with those of the Grameen Bank approach. The group formation, size of group, weekly/fortnightly/monthly savings, training of group coordinators/organisers on project philosophy, and also linking of second loan with the repayment of first one, bring home the similarities. However, the major point of departure is the involvement of Commercial Banks in developing a credit capital besides the contribution of the donor agency at the ratio of 2:1 and provision of Guarantee-cum-Relief Fund (GRF) on condition that 10 times to the amount of GRF would be disbursed as loans to group members without any collateral. A work manual was also developed for guiding the project personnel.⁷⁹

Results :

The project, eventhough at experimental stage, indicated that the rural poor do respond enthusiastically to the generation of

79. Bari, F. "Small Farmers Development Project", paper presented in the International Seminar on Rural Development in Bangladesh : Strategies and Experiences, held at BARD, Comilla, Bangladesh during January 15-17, 1992.

savings in building up their own capital and hence the approach is bankable. The policy of closer rapport with the beneficiaries before extending the loan and watching their creditability, does help considerably in avoiding the risk elements from the groups. Engaging Group organisers from the local rural youth increases effectiveness of the programme. The workmanual play a vital role in successful implementation of the project. Estimates indicated that the project's overhead cost can be covered from out of the interest earned from loan investments. Simultaneously, the groups are also likely to develop their own capacity as creditworthy groups, thus making the project replicable and sustainable. 80

4. Women in Rural Development

Development Planners' Bias :

Rural women form the most important productive workforce in the economy of majority of the developing nations including Bangladesh. If one goes beyond the conventional market oriented definition of 'productive workforce', almost all women in rural Bangladesh today can be considered as 'farmers' in some sense - working as wage labour, unpaid worker in the family farm enterprise, or some combination of the two. Despite such significant contribution, an all pervasive bias of development planners have kept them away from the development programmes in the rural areas. The bias is closely associated with many assumptions inherent in the planning process. Firstly, their traditional association with reproduction and family

80. Op. cit.

management restricts women in the private inside sphere, while men interact with the 'outside' spheres establishing contacts with the marketing, financial and other institutions. Secondly, lack of access to the cash income relegates many women engaged in the production process into a subordinate position and perpetuating the myth that women's work is auxiliary. The parameters of 'work' used in official data system do not take into account the numerous unpaid domestic as well as family agricultural enterprises, the women in rural areas are involved with. Thirdly, the subordinate status of women has made them supplementary earners with the male as head of the households. Most of the development interventions in agriculture and allied fields of rural development are addressed to the family as a unit and male being the familyhead, they become the target group. All these biases ultimately affect their health, nutrition, education and community participation.

Impact on Women :

Such biases in case of women in agriculture in Bangladesh are reflected through their lack of rights on land title due to law of inheritance, the women not being reached by the agricultural extension agents, lower wage rate as agricultural labours, limited access to technology and support services including institutional credit. On the contrary, the agricultural development projects, when received higher production at farm level, considerably increased the workload of women, specially in the small farming households. These also affect sometimes their traditional income earning activities like vegetable growing. Moreover, the homestead production endeavours

of women are sometimes adversely affected by state encouragement of commercial enterprises, coming in competition with the women in the same fields.⁸¹

Successful experiments launched by several NGOs in Bangladesh have already established the potential of poor rural women through specific income generating activities in agriculture.

In the non-farm sector, the scope of rural women's employment is limited, even though a few government initiated programmes like RWP or FFW are creating employment avenues in recent days. But all these opportunities are non-technical which may help in mere survival, but can never be an alternative to women's development. Several government and non-government interventions are reported in implementing income generating projects. More successful among them are poultry raising, livestock rearing, fishing, food processing, trading and shopkeeping etc. But none of these self-employment schemes have potential to be transferred into independent business enterprise.⁸²

In order to facilitate real empowerment of women, organising them into groups is needed. Several NGOs again have done exemplary work in this regard. Participation of women in rural local government is essential to really empower them.⁸²

81. Islam, M. "Women in Rural Development" paper presented in the International Seminar on Rural Development in Bangladesh: Strategies and Experiences held at BARD, Comilla, Bangladesh, during January 15-17, 1992.

82. Op. cit.

All these problems are needed to be tackled with increased vigor to make the women partners in the process of rural development.

Summing Up

The interventions for poverty alleviation in Bangladesh Rural Development were made primarily as a response to international strategy of combating poverty in the developing world. Subsequently the poverty focus was widened with widening the scope to disadvantaged sector in general to bring all of them in the mainstream development process. The experiences can be crystallised in the form of a few observations.

1. The IRDP, originally conceived in the line of two-tier cooperative model, developed as an outcome of Comilla experiment, underwent radical change with the incorporation of resource poor groups. Very rapid expansion of its network took place throughout the country by expanding the coverage as well as the role. This resulted into extending the benefits very thinly over a large number of people.
2. The benefits of IRDP was cornered to a great extent by rural elites, which however, could not be controlled as they were very much part of the cooperative societies.
3. The IRDP has succeeded considerably in spread of modern irrigation equipment and increasing the command areas, which can be consolidated by unification of the cooperatives at all levels and organising them only around the irrigation facilities.
4. The IRDP, to be more effective, should be strengthened with higher degree of autonomy and more effective interagency collaboration.
5. The replicability of donor dependent Grameen Bank experience needs careful review. Diversification attempts of the Grameen Bank to generate its own resources need to be studied in relation to additional burden on their resources.
6. The Grameen Bank's successful experiences in respect of the impact points like formation of small homogeneous groups, group guarantee or weekly saving mobilisation are points for emulation by the supervised credit institutions.

7. There are complementarities in the approach of SFDP and Grameen Bank, which could be consolidated to arrive at policy decisions for financing the disadvantaged sector of rural Bangladesh.
8. The rural women, inspite of their major contribution in the productive process, are still now considered as auxiliary work force, in view of lack of standard methodologies for their work quantification.
9. The rural women are bypassed by the extension and credit institutions, law of inheritance. The income generating activities in which they are involved are too traditional in nature with very little scope of expanding them into independent business enterprises. There is no attempt of organising the women by the development agencies, except a few sporadic attempts of some NGOs.

TRAINING AND EDUCATION IN RURAL DEVELOPMENT

The effectiveness of the interventions discussed so far, depends on the trained manpower capable of planning, implementing, monitoring and evaluation of the developmental programmes. The shortage of trained manpower is perhaps the most serious obstacle to largescale rural Development efforts. An intensified training effort, particularly directed towards the various clientele groups as well as the originator and managers of the programmes, the policy makers, implementors, NGO representatives and the local government functionaries is very important for the success of rural development . In recognition of the importance of training, the fourth plan decided to embark upon intensive training of the government functionaries, rural leaders including cooperators and staff to increase the efficiency of the rural institutions. An overview of such training and education strategy of the country catering to the needs of rural development will help in evolving a pragmatic strategy for the future.

Clientele

The rural development training system of Bangladesh caters to the need of a wide cross section of people. They are general members and office bearers of village-based cooperative organisations, village level extension and supervisory staff, cooperative leaders operating at the upazila, district or national levels, representing different development departments and agencies.⁸³

Training Infrastructure :

The country has an extensive network of training institutions offering varied kinds of programmes to wide range of clientele at different levels. While there are host of institutes operating at the local level (mostly upazila), the national level institutes meeting the training requirements at higher level are Bangladesh Rural Development Academy at Comilla, Rural Development Academy at Bogra, Rural Development Training Institute at Sylhet and National Institute of Local Government at Dhaka. Besides, the Bangladesh Cooperative College at Comilla caters to the need of the cooperative sector training requirements.⁸⁴ The Non-Government Agencies also have come up with their own training infrastructure. The Grameen Bank has an extensive training facilities for their field workers, while Bangladesh Rural Advancement Committee (BRAC) has also come up with their own training infrastructure. A few donor funded programme also have established their own training facilities.

83. Rahman, K.M. "Training and Education in Rural Development," paper presented in the International Seminar on Rural Development in Bangladesh : Strategies and Experiences, held at BARD, Comilla, Bangladesh during January 15-17, 1992.

84. Op. cit.

Lack of Coordination :

Apparently, from such multiplicity of training infrastructure, in a poor country like Bangladesh, it is required to rationalize the use of such resources for maximizing the benefits. In order to properly coordinate the activities of such institutions, the National Council for Rural Training needs to be revived and strengthened with clearly defined terms of reference.⁸⁵

Training-Research Complimentarity

As training in rural development covers the real life situation in rural areas, the contents should primarily be based on research and field observations. It should be made mandatory for the training institutions to launch specific research projects at the village level, so as to make the contents pragmatic.

Training of Trainers

In order to improve the efficiency of the training institutes, the professional skill of the trainers need to be upgraded through an ongoing process of training of trainers.⁸⁶

Evaluation of Training

The training institutes for attaining highest level of professional competence in offering the programmes, should constantly evaluate the programmes in consultation with the sponsoring agencies.⁸⁷

85. Op cit.

86. Op cit.

87. Op cit.

Some Relevant Issues

The depiction of experiences of various interventions made in the Bangladesh Rural Development scenario for these thirty years or more leads us to a few areas of concerns which need to be answered for deciding pragmatic strategies for the country as a whole. The seminar may like to address to such issues categorised into policy and managerial dimensions in search of a strategy on rural development.

I Issues Relevant to Institutional Intervention

(a) Policy Issues

1. What should be the institutional structure of rural development for addressing the administrative, financial and production related issues confronting the Bangladesh villages of nineties ? Should they be single purpose or integrated ?
2. What should be the mechanism of integration or linkage between such institutional structures ?
3. How to ensure sustainability of such institutional structures (political and administrative commitment) for the system to statilize ? How to inculcate a spirit of self-reliance in the rural communities by replacing dependency syndrome ?
4. Should these institutions specifically focus their attention on poverty/disadvantaged groups or villagers in general ?
5. How to ensure more effective coordination between the government and non-government agencies in the fields of rural development ?
6. What should be the policy of integration of the donor aided projects on rural development in the overall institutional framework ?

(b) Management Issues :

1. What should be done to remove the problems of dualism in management of cooperative societies and unify them to create a single organisation ?

2. How to mobilise and increase the share of local resources in the management of the cooperative societies to make them self reliant ?
3. What should be done to curb the domination of vested interests in the village institutions ? What kind of supervisory efforts on the part of the institutions are likely to help in this regard ?
4. How to bring about effective functional coordination between different institutions for production, infrastructure and support services at the operational level to increase productivity ?
5. How to ensure maintenance and proper utilization of the infrastructures created as a result of institutional interventions ? How to ensure people's participation in this process ?
6. What are the functional areas concerning rural development at field level where NGO's cooperation can be sought ? What should be the functional mechanism of such cooperation ?
7. What should be the training strategy to meet the manpower requirement for more effective institutional interventions ?

II Issues Relevant to Technological Intervention

(a) Policy Issues

1. What would be the land use policy for maximising productivity for the country as a whole, considering its agro-ecological characteristics ?
2. How to organise the entire gamut of agricultural research in the country in a coordinated manner, responsive to the integrated land use policy ?
3. Should the extension system follow the present crop-oriented approach or broad basing its structure is needed ? If so, how to do the broad basing of extension ? How to make it more responsive to the problems of resource poor farmers and areas ?
5. How to draw a sound environmental policy capable of supporting the development projects in a sustainable manner?
6. What should be the steps to formulate integrated energy planning for Bangladesh and policy for research and development of rural renewable energy technologies ?

(b) Management Issues :

1. What steps are required to harness the untapped irrigation potential in the country ?
2. How to gear up the agricultural research to develop productive package for rainfed areas and facilitate remunerative crop diversification in irrigated areas ?
3. How to encourage research in biotechnology to produce a breakthrough in agricultural research ?
4. What should be the extension management approach for encouraging crop diversification and integrated land use ?
5. What steps should be taken to procure the feed, fodder and pasture resources for the livestock population ?
6. How to provide the support services to the fisheries sector by producing adequate fingerlings and marketing services ? How to control the unplanned expansion of the fish processing industries ?
7. How to develop an efficient information base for the benefits of the marine fisheries sector ?
8. What corrective actions need to be taken to improve the rural health facilities in respect of various managerial dimensions ?
9. How to make Environmental Impact Assessment (EIA) mandatory before formulating any development project ?

III Issues Relevant to Disadvantaged Sector Interventions

(a) Policy Issues

1. Should IRDP be exclusively aimed at poverty alleviation or continue to address to the resourceful also ? Is it advisable to distribute the benefits thinly over a large number of people or restrict it for more intensive change among relatively fewer ?
2. How to extend greater degree of autonomy to the IRDP and facilitate more intensive interagency collaboration ?
3. What should be done to combat the problems of softer loans to insulate cooperative discipline from erosion of their resource base ?
4. What is the possibility of adopting the impact points out of the experiences of Grameen Bank for being adopted by the supervised credit institutions ? If possible, what policy intervention are needed ?

5. What policy changes are needed towards mainstreaming of rural women in the rural development process ?
6. What should be the specific research and extension policy to come out with technologies for resource poor farmers and areas and their dissemination ?

(b) Management Issues :

1. Is it advisable to organise the IRDP beneficence only around some productive activities like irrigation ? If so, how to execute it ? If not, what should be the alternative course of action ?
2. How to facilitate more functional coordination between IRDP on one hand and institutions aiming at tackling poverty on the other with an aim of increasing productivity as well as employment opportunities ?
3. How to translate the successful impact points of Grameen Bank or SFDP experiences into action by the supervised credit agencies ?
4. How to work out the methodology of quantification of women's contribution in various rural productive activities ?
5. How to organise extension services for the rural women involved in productive activities ? How to augment the level of technologies in income generating activities for rural women to make them more efficient and convert them into business enterprises ?
6. What steps should be taken toward organising women for empowering them ?

CONCLUSION

After reviewing the entire range of rural development experiences of Bangladesh for little more than three decades, one comes to conclusion that due to various reasons, political and administrative, no definite structure of rural development institutions evolved. It is very important to provide a sound base for the superstructure of rural development to stand. The institution thus created, should strive for all round integration of efforts leading towards increased productivity. Increased

productivity should be attempted by taking the entire gamut of rural Bangladesh, mainly agrarian in nature. Bangladesh, being dominated by poor people, the increased production strategy should be supported by equity considerations, as the experiences so far indicated vested interests' domination over the institutions and resources. So, the strategy should be able to address to the problems of productivity-equity - sustainability, so very vital for an egalitarian society.

1. How to translate the successful impact points of the Bank or IFU experiences into action by the supervised credit agencies?
2. How to work out the methodology of quantification of women's contribution in various rural productive activities?
3. How to organize extension services for the rural women involved in productive activities? How to augment the level of technological innovation in women's productive activities for rural women to make them more efficient and convert them into business enterprises?
4. What steps should be taken toward organizing women for empowering them?

CONCLUSION

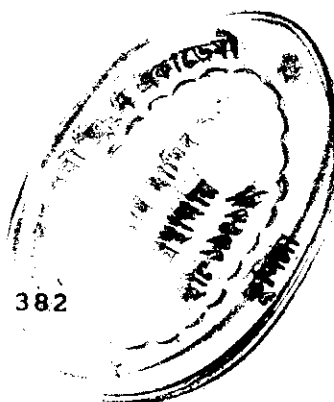
After reviewing the entire range of rural development experiences of Bangladesh for little more than three decades, one comes to conclusion that due to various reasons, political and administrative, no definite structure of rural development institutions evolved. It is very important to provide a sound base for the superstructure of rural development to stand. The institution thus created, should strive for all round integration of efforts leading towards increased productivity. Increased

REFERENCES

1. Asian and Pacific Development Centre, "Country Notes on the Status of Training in Government". Kualalampur, 1975.
2. Bangladesh Academy for Rural Development, Annual Reports 1970-71 to 1989-90. Comilla, BARD, 1970 to 1991.
3. Bangladesh Academy for Rural Development, Design of Training Programmes and Course Contents with Bibliography for Thana Level Officers in Rural Works Programme and Other Development Programmes in Rural Areas. Comilla, BARD, 1976.
4. Bangladesh Academy for Rural Development, Report of the IRDP Project Officers (5th Batch) Pre-service Training Programme. Comilla, BARD, 1977.
5. Bangladesh Academy for Rural Development, Training at BARD. Comilla, BARD, 1983.
6. Bangladesh Academy for Rural Development, Experimental Projects of BARD. Comilla, BARD, 1984.
7. Bangladesh Academy for Rural Development, Three Decades of BARD, (Unpublished Report). Comilla, BARD, 1990.
8. Bangladesh Academy for Rural Development, Reports of Annual Planning Conferences (1989-'90 to 1991-'92). Comilla, BARD.
9. Carnoy, M., et.al. Can Education Equalize Income Distribution in Latin America ? Geneva : ILO, 1978.
10. Casse P. and Deol S.P.S. Principles of Case Writing : Workbook I. EDI Training Material, World Bank, 1983. p-9.
11. Fuller, W. Education, Training and Worker Productivity : Study of Skilled Workers in Two Firms in South India". Ph.D. thesis : Stanford University, 1970.
12. Gray E.R. and Smeltzer L.R. Management : The Competitive Edge. Macmillan Publishing Co., New York, 1989, pp 197-199.
13. Haddad, W.D. et al. Education and Development : Evidence for New Priorities. World Bank Discussion Papers No.95, Washington, D.C. : World Bank, 1990.
14. Hasan, M. A Follow-up of Pre-service Training Course for the Deputy Project Officers of Integrated Rural Development Programme (7th Batch). Comilla, BARD, 1977.
15. ILO, Management Administration and Productivity : International Directory of Institutions. Geneva, 1981.
16. ILO, Multinational Training Practices and Development. Genva, 1981.

17. Islam, S. A Historical Background of the Comilla Approach to Rural Development with Special Reference to the Training Methods and Materials. Comilla, BARD , 1964.
18. Khalid, M. Shams, Public Administration Training in Bangladesh: Need for a Functional Approach. COTA Bulletin, Dhaka, 1975, Vol. 3 p. 41.
19. Khan, A.A. "Rural Development Training in Bangladesh", in A.A. Raksasataya and L.J. Fredericks (eds.) Rural Development Training in Asia. The Asian Centre for Development Administration, Kualalampur, 1977.
20. Khan, A.A. et al., Training at BARD: A Review of Course Catalogue, Participants and Training Content (1959-74). Comilla, BARD, 1978.
21. Khan, Aziz A. and Obaidullah, A.K.M, Training Strategy in Rural Development Sector and the Experiences of BARD. Comilla, BARD, 1980.
22. Koontz H. and Weihrich H., Management. McGraw Hill Book Company, New York, 1988, p. 111-113.
23. Langoni, C. "Income Distribution and Economic Development in Brazil" . Conjuntura Economica, (27), 1973.
24. Lynton R.P. and Pareek, U. Training for Development. Connecticut, Kumarian Press, 1978.
25. Mannan, M.A. "Development Support Communication (DSC) at BARD - Project Assignment Report. Comilla, Bangladesh, 1992.
26. Mathur J.S. "Theory and Methods of Training for Development Administration". in Reading Material for the Course on Training Methods and Techniques in Rural Development. NIRD, India, 1990. pp. 54-76.
27. Min, W. "The Impact of vocational Education on Productivity in the Specific Institutional context of China : A Case Study". Ph.D. Thesis : Stanford University, 1987.
28. Pakistan Academy for Rural Development, Annual Reports 1959-60 to 1969-70. Comilla, PARD, 1960 to 71.
29. Pakistan Academy for Rural Development, Syllabus for the Development Officers of Village-AID Programme. Comilla, PARD, 1960.
30. Parry, S. Using Role Playing in the Classroom. Training House, Inc. New York, 1974.

31. Paul, S. Training for Public Administration and Management in Developing Countries - A Review. World Bank Staff Working Papers, No. 584, Washington D.C. : World Bank, 1983.
32. Planning Commission The First Five Year Plan (1973-78). Government of the People's Republic of Bangladesh, 1973, pp. 490-492.
33. Planning Commission The Second Five Year Plan (1980-85). Government of the People's Republic of Bangladesh, 1980, pp. VIII 2-11.
34. Planning Commission, The Third Five Year Plan (1985-90). Government of the People's Republic of Bangladesh, 1985 pp. 215-218.
35. Planning Commission, The Fourth Five Year Plan (1990-95). Government of the People's Republic of Bangladesh, 1990, pp. XVII-5.
36. Quddus, M.A. and S. Hussain, Evaluation of Assistant Rural Development Officers' (13th Batch) Training Programme at BARD. Comilla, BARD, 1988.
37. Quddus, M.A. et al. Post-Training Utilisation, The Case, of ATM Courses. BARD, 1991.
38. Raksasataya, A. and Fredericks, L.J. Rural Development Training to Meet New Challenges, Vol. (1 to 5), Kualalampur, 1978.
39. Sutton, F. and Smith, T. The Ford Foundation and Public Management in the Less Developed Countries (mimeo.) New York, Ford Foundation, 1975.
40. The Bangladesh Academy for Rural Development Ordinance, 1986.
41. UN, Changes and Trends in Public Administration and Finance for Development, 1975-77. New York, 1982.
42. Warren, M. Training for Results. Massachusetts. Addison - Wesley Co. , 1969, Chapter 3, pp 37-46.
43. World Bank, Review of Training in Bank Financing Projects. Report No. 3834, Washington D.C , World Bank, 1982.



A3432

26 Sep 93
11 Nov 93
20A 363
6 MAY 1998
2001
2 JUL 2001

En 35311

Training at BARD Plans and Actions
for Upgradation



EG35311

658.312404

SET

C-2

A 3432