INFORMATION SYSTEM AND PARTICIPATORY APPROACHES FOR PROJECT FORMULATION

DIPAK DE

Professor & Head, Department of Extension Education, I.Ag. Sc., B.H.U., Varanasi - 221002

INTRODUCTION:

The communication science has to be viewed from different perspective due to the growing challenges to be met out. It has passed through simple interaction to highly complex process of information network resulting to growth of information society. Today's world can be viewed on information continum from least to highly informed. There are nations which are highly informed and there are nations which are moderately informed and striving to join the highly informed category. The third group consists of those nations which are living in a least informed state. The 2nd category can be classified as developing nations and 3rd category can be grouped as underdeveloped nations. Similarly, communities and individuals can also be categorised in terms of information accessibility and use.

In this perspective, Corea's (1990) view point on role of knowledge (information) in human resource development deserves attention.

But no less important in the area of human resource development is a new factor; the crucial and strategic role that knowledge will play in the world economy of the 1990s and of the century to come. Already, it is being said that the gap between countries is no longer a gap between rich and poor counties, but rather a knowledge gap, a gap between those with scientific and technological knowledge and those without. The future progress and prosperity of nations will depend less on their geographical position, less on their natural resources endowments, less on their reservoirs of unskilled manpower. It will depend on the extent to which those nations acquire command over modern scientific and technological knowledge.

This clearly indicates the importance of information as an input and power in Nation/Community/Individual development. In a broad sense, those who are powerful and dominant have accumulated wealth and posses ability to control, creat and flow of information from their point of view. All sorts of clubs, associations and structures which we witness at International level are in fact mechanisms by which Developed World is constantly controlling and manipulating information flow.

The topic has been dealt in the following sub-heads : (i) Information System; (ii) Information Stratum; (iii) Characteristics of people in Information Stratum; (iv)participatory approaches; and (v) steps for project formulation

INFORAMTION SYSTEM

Webster's dictionary defines information as "knowledge Communicated by others or obtained by personal study and investigation", or alternatively as "Knowledge of special events, situation or the like". Hence, all information is knowledge. Legans (1971) defined information as a message, a communicator wishes his audience to receive, understand, accept and act upon. He further stated that information might consist of statements of scientific facts, descriptions of actions being taken, reasons of why certain action should be taken, or steps necessary in taking action. Thus, information is generalised idea, opinion, fact, feeling, piece of knowledge that proceed action.

Ackoff (1961), defined system is an entity, conceptual or physical, which consists of interdependent parts. More or less similar views have been expressed by Arundale (1968) about the system. To him system refers to a boundary maintaining set of interdependent particles or components, while a system's components can be separated for the purpose of study, but such a study must also

consider the interactions between the components. Any collection of elements that interact in some way with one another can be considered a system (Dahl, 1975). A system to Mathew (1964) is collection of independent parts devoted to the accomplishment of some goal or goals with the parts maintained in a state in relation to each others and the environment by means of (i) standard modes of operation, and (ii) feedback from the environment about the consequences of the system-action. Rapport (1968) in his foreword to the book "Modern Systems Research For The Behavioural Scientists", maintained that a whole which functions as whole by virtue of the interdependence of its parts is called a system. To be even more specific for the purpose of research, a system is defined as a set of components interacting each other and a boundary which possess the property of filtering both the kind and rate of the flow of inputs and outputs to and from the system (Berrien 1968). Briefly Hall and Fagen (1968) defined a system as a set of objects together with relationship between the objects and between their attributes. To Cassata & Asante (1979) system is a group of constituents plus the relationships between them plus their attributes.

Therefore, information system refers to a group of ideas having a set of attributes and their relationship.

INFORMATION STRATUM:

We can classify a social system in distinct three strata in terms of information. The individuals who find themselves within the boundaries of an information system are seldom equally concerned with information use. Some are indifferent and others more deeply involved. Even among those who are seriously involved, only some actively hold and seek information. These groups can be classified as: (i) Aphonic persons (Ap); (ii) Information Seekers (IS); and (iii) Information Holders (IH). This has been presented in the figure 1.

APHONIC PERSONS (AP): These are the person(s) who are indifferent to seek and use information. They are the majority members of the society as presented in the figure.

Why do people remain indifferent to information? Some of the reasons could be:

- i) If they place less value on the particular information in terms of rewards to be gained. To many people information relating to Scientific and Technological (S & T), political, etc. may be less gratifying than working on one's job.
- ii) If they think that alternative information is not going to fulfill their immediate need (s).
- iii) If they think that the new information is beyond their comprehension level; and
- iv) If they think that the new information use requires resources more than their capacity.

INFORMATION SEEKERS (IS): These are the person(s) or group(s) who are constantly engaged in seeking information. Generally people have desired to know the unknown. They employ multiple means to achieve their goals. Not all people use their resources to gain information, yet some. Why do some people seek information? The answer to this question can be grouped into following categories as opined by Dahl (1975):

- i) Men seek information in order to achieve collective good;
- ii) Men seek information in self interest; and
- iii) Men seek information from unconscious motivation.

Depending on culture, society and political system, information can be used to acquire fame, security, respect, wealth and many other values. It is a compound of conscious and unconscious motives. They may be progressive members of the society.

INFORMATION HOLDERS (IH): These are the person(s) or group (s) of persons who create and hold the information. They may be scientists, technical experts, change agents and elite of the society. Why do some people hold information? This question can be answered from several angles:

- i) Person(s) or group (s) who generate the information, have tendency to hold due to inherent tendency of fulfilling ego;
- ii) To exercise authority over others; and
- iii) To derive benefits in favour of self.

At a global level it means control on scientific and technological knowledge (information) by the developed nations. There could be several examples; one of them is sharing of atomic information with Third World countries. It is they who decide what to give and what not to give; where to give; whom to give; why to give; how much; and at what speed to give. This is how they hold and play with information. At the individual level it is the fulfillment of ego and interest which governs the tendency to hold information. This is at the point of information generation.

At the level of information dissemination, the person(s) or group(s) also holds information. As for example Extension Agencies do not pass on the total information received from generation sources to the ultimate users. Similarly at the community level the elite holds the information and uses in its own interest.

Our examination of AP, IS IH reveals endless variety of human motivations and personalities at work in information use. A particular person's orientation toward information can be explained in some degree in the light of his personality or character and cultural milieu in which he lives and his life situation.

An attempt has been made to present an orderly view of their characters in the following table.

Table 1. Characteristics of the people in the different strata of information system

Types of people in terms of Information System		<u>Characteristics</u>	Key concepts
InformationHoldersScientists,ChangeAgents and Elites	i)	Originator/Generator/ Multiplier	They are the persons who invent/discover/create/accumulat e information.
	ii)	Information owner/ownership (Cassata & Asante 1979)	It usually involves control of information production.
	iii)	Apathetic sharing	They have least desire to share information.
	iv)	Brahminical Attitude	Feeling of superiority causing nonsharing of information with other members of social system.
	v)	Gate keeper (Westly & Maclean 1957, Fett 1974)	Controlling of information flow.
	vi)	Highly receptive	Well developed capabilities of operating simultaneously on different wavelengths.

Information Seekers Progressive members	i)	Multiplier	They are the persons who accumulate process and store information.
	ii)	Inquisitor	They are the persons who decide the desirability of information.
	iii)	Receptive	Capabilities of operating on different wavelengths.
	iv)	Gate keeper (Westly & Maclean 1957] Fett 1974)	Controlling of information flow.
	v)	Non-insulated	They are constantly in interaction with happenings in the surroundings.
	vi)	Space maker	They are having coping capabilities with the recent happenings in the social system.
Aphonic Persons			
Indifferent persons	i)	Apathetic attitude	They are inactive in seeking information.
	ii)	meaninglessness (Seeman 1959)	The individual is not clear as the what he ought to believe. He cannot predict with confidence the consequences of acting on a given belief. The problem of meaninglessness, therefore, is a problem of uncertainty. In this he finds that his existence is irrational, absured and meaninglessness.
	iii)	Self estrangement (Fromm 1956, Marcuse 1964, Laing 12973)	It is the state of mind where individual does not experience himself/herself as an active agent for bearer of human power.
	iv)	Non-receiptive	Lack of capabilities of operating on different wavelengths.
	v)	Powerlessness (Pandey 1984, Marx 1972, Chambers 1983)	It is the state of the individual where he does not have the access to the resources available.
	vi)	Insulated (Chambers 1983)	They are not in touch with the happenings in the surroundings.

INFORMATION TYPES

- Scientific information: refers to ideas, thoughts, concepts etc. Which are the product of systematic endeavour
- Technical information: refers to the application of scientific information in day today life situation
- Policy information: refers to ideas, thoughts, opinion etc. For making choices of alternate strategies
- Managerial information / operational information : refers to ideas enabling production, maintenance and services

INFORMATION USE

- Know why scientifically oriented
- Know how technically oriented
- Show how operationally oriented

PARTICIPATORY APPROACHES:

PARTICIPATION MEANS DIFFERENT THINGS TO DIFFERENT PEOPLE:

PASSIVE PARTICIPATION: people participate by being told what is going to happen or has already happened. It is an announcement by administration or project management without listening to people's response.

PARTICIPATION IN INFORMATION GIVING: people participate by answering questions posed by researchers by using questionnaire surveys or similar approaches. People do not have the opportunity to influence proceedings.

PARTICIPATION BY CONSULTATION: people participate by being consulted, and external agents listen to views. This does not concede any share in decision making, and professionals are under no obligation to take on broad peoples' views.

PARTICIPATION FOR MATERIAL INCENTIVES: people participate by providing resources, for example labour, in return for food, cash or other material incentives. Though this is called participation, people have no stake in prolonging activities when the incentives end.

FUNCTIONAL PARTICIPATION: people participate by forming groups to meet predetermined objectives related to the project. These institutions tend to be dependent on external initiators and facilitators, but many become self reliant.

INTERACTIVE PARTICIPATION: people participate in joint analysis, which leads to action plans and the formation of new local institutions or the strengthening of existing ones. These groups take control over local decisions, and so people have a stake in maintaining structures and practices.

SELF MOBILISATION: people participate by taking initiatives independent of external institutions to change systems. They develop contact with external institutions for resources and technical advice they need, but retain control over how resources are used. (*Extension Digest, 1995 vol 2*)

TERMS USED IN PARTICIPATORY METHODS

•	AEA	AGRO ECOSYSTEM ANALYSIS
•	BA	BENEFICIARY ASSESSMENT
•	DELTA	DEVELOPMENT EDUCATION LEADERSHIP TEAMS
•	D&D	DIAGNOSIS AND DESIGN
•	FPR	FARMERS PARTICIPATORY RESEARCH
•	FSE/E	FARMING SYSTEMS RESEARCH / EXTENSION
•	PALM	PARTICIPATORY ANALYSIS AND LEARNING METHODS
•	PAR	PARTICIPATORY ACTION RESEARCH
•	PD	PROCESS DOCUMENTATION
•	PRA	PARTICIPATORY RURAL APPRAISAL
•	PRAP	PARTICIPATORY RURAL APPRAISAL AND PLANNING
•	PRM	PARTICIPATORY RESEARCH METHODS
•	PTD	PARTICIPATORY TECHNOLOGY DEVELOPMENT
•	RA	RAPID APPRAISAL
•	RAAKS	RAPID APPRAISAL OF AGRICULTURAL KNOWLEDGE SYTEMS
•	RAP	RAPID ASSESSMENT PROCEDURES
•	RAT	RAPID ASSESSMENT TECHNIQUES
•	RCA	RAPID CATCHMENT ANALYSIS
•	REA	RAPID ETHNOGRAPHIC ASSESSMENT
•	RFSA	RAPID FOOD SECURITY ASSESSMENT
•	RMA	RAPID MULTI PERSPECTIVE APPRAISAL
•	ROA	RAPID ORGANISATIONAL ASSESSMENT
•	RRA	RAPID RURAL APPRAISAL
•	TFD	THEATRE FOR DEVELOPMENT
•	TFT	TRAINING FOR TRANSFORMATION

(Extension Digest, 1995 vol 3&4)

COMMON PRINCIPLES OF PARTICPATORY APPROACHES

- A DEFINED METHODOLOGY AND SYSTEMATIC LEARNING PROCESS the focus is on cumulative learning and their use has to be participative
- **MULTIPLE PERSPECTIVES** a central objective is to seek diversity, the assumption being that different individuals and groups evaluate situations in different ways leading to different actions
- *GROUP INQUIRY PROCESS* all emphasize the process of group enquiry. This implies multidisciplinary, multisectoral mix and mixes of outsiders (professionals) and insiders (local people, farmers etc.)
- **CONTEXT SPECIFIC** each application is flexible enough to be adopted to suit new conditions and actors
- FACILITATING EXPERTS the role of the expert is best thought of as helping the people in their situation carry out their own study
- **LEADING TO ACTION** the enquiry process leads to debate about change. Action is agreed, and implementable changes represent an accommodation between the different conflicting views. The debate defines changes which would bring about improvement and seeks to motivate people to take action to implement the defined changes

(Extension Digest, 1995, vol3&4)

FIVE PHASES OF PARTICIPATORY PROCESS

- 1. **ENTRY PHASE**: Establishing rapport and forming groups
- 2. **PREPARATORY PHASE**: Preparing groups for making action plans
- 3. **PLANNING PHASE**: Preparation of action plans in suitable formats
- 4. **IMPLEMENTATION PHASE**: Execution of action plans

5. FOLLOW UP AND EVALUATION PHASE

The process of participatory management in each phase is broken down into a series of successive operations by conceptualizing participatory process into a series of major undertakings – each broken into discrete tasks – each task broken down to a series of steps. The basic structure of this process is based on the principle of learning by doing and incremental progression in small steps.

Monitoring and process documentation are an essential ingredients of the participatory process, in terms of the need of participants to assess what has been achieved, identify problems and find solutions for further improvement.

(Extension Digest, 1995)

PROCESS AND METHODS OF PARTICIPATORY EXTENSION MANAGEMENT

- 1. Farmer to farmer extension should be encouraged and capacity of farmers for experimentation and extension should be strengthened. Since each farm is different and needs change over time, external institutions must be flexible and responsive, and ready to learn with farmers.
- 2. The pace of programmes and projects must be slow to build motivation, confidence and rapport all most all the groups involved.
- 3. Village based management of programme funds and planning are important prerequisites.

(Extension Digest, 1995 vol 2)

INTER INSTITUTIONAL ARRANGEMENTS FOR PARTICIPATORY EXTENSION MANAGEMENT

- 1. Widespread training and competence building is needed to encourage and sustain participatory approach. There is need for expanding training in participatory methods that focus on joint learning for action.
- 2. Joint approaches increase contacts and linkages between farmers and external institutions, increasing the likelihood of policies and practices emerging that satisfy all actors.
- 3. Roles of different institutions involved (eg. In developing joint watershed management need to be clarified)
- 4. Development of strong inter-village institutions can effectively manage activities like credit, marketing, protection of common lands with limited extension support.

PROJECT FORMULATION

Project formulation is preparing a blue print of any development programme to be undertaken to effect a change as an answer to a problem in a specified time for the benefit of the needy people of a particular area.

Broadly projects are of two kinds

- 1. Area based rural, coastal, slum etc.
- 2. Target group oriented tribal, women etc.

The key priorities of any project should be

- Need based
- Appropriate
- Participatory
- Benefiting many

Three basic elements of any projects are

- 1. Problem
- 2. Solution
- 3. Support

Every development project has four characteristics

- It has a specific aim
- It is an instrument of change
- It involves cost, resources, and skills
- It provides concrete time bound result.

Four steps of project formulation

- Identifying and analyzing the problem
- Finding a solution and preparing a strategy
- Estimating the assistance required
- Organizing the monitoring, evaluation and follow up.

Monitoring

Give details of monitoring systems eg. What will be monitored, whose responsibility, what records will be kept, what meetings will be held, who will be informed of progress and by whom, how will the monitoring results will be produced and who will they be given to? When will all this happen? What are the existing systems for financial monitoring? Include details of SKI monitoring system.

Evaluation

What are the plans for evaluation?

Who will be consulted as part of evaluation?

What form will the evaluation take, and who will do it? (e.g. internal or external)

What will be evaluated?

How often will evaluation take place? (Stephen 2003)

CONCLUSION

A vast majority of the social system nominclated as Aphonic Persons (in this case), have not been able to participate actively in the process of democratic development. Participatory method is an attempt of harnessing their potentialities for making them active partners in the process of change. This will make them aware of their rights, arouse initiations, realize their inner strength, absorb useful information and utilize them for achievement of meaningful goals. This will be a regenerative process for empowering them. It can be concluded with saying of Lao Tsu, China "Go to the people, live with them, learn from them, love them, start with what they know, build with what they have, but with the best leaders, when the work is done, the task is accomplished, the people will say we have done this ourselves.

REFERENCES

- Ackoff, C (1961): Quoted by Ambasta, C.K. Unpublished Ph.D. Thesis. "Communication Patterns in Farm Innovation Development, Extension and Client Systems in Bihar: A Systems Approach". Division of Agril. Extension, IARI< New Delhi 1974.
- Agrawal, A and Narain, S (1989): "Towards Green Village A Strategy for Environmentally Sound and Participatory Rural Development". Published by Centre for Science and Environment, New Delhi.
- Arundale, A.C. (1968): "A System Theory A Sociological View in Walter Buckley (1968) Sociology and Modern Systems Theory". Eglewood Cliffs, New Jersey, Prentice Hall, Inc.
- (1990): "The Manila Declaration on People's Participation and Sustainable Development". Ifda dossier 75/76 January/April.
- (1989): "World Commission on Environment and Development Our Common Future". Oxford University Press.
- Beltrans, L.R. (1974): "Rural Development and Social Communication: Relationship and Strategies". Paper presented in Cornell CIAT International Symposium on Communication Strategies for Rural Development. March 17-22. CIAT Headquarters, Cali, Colombia.
- Berrien, F.K. (1968): "General and Social Systems" New Brunsurck; Rutgers University Press.
- Byrnlo F.C. & B.K.J. (1971): Agricultural Extension and Education in Developing Countries in R.Weltzed. Rural Development in Changing world, Cambridge Press.
- Cassata, Mary and Asante Molefi, K. (1979): Mass Communication Principles and Practices" Macmillan Co. Inc., New York.
- Chambers, R (1983): "Rural Development: Putting the Last First". Longman, London, Lagoes, New York.
- Corea, G (1990) "An International Development Strategy for the 90s Global Stakes Require a new Consensus". Ifda dossier, July/Septemebr 78.
- Dahl, Robert A (1975): "Modern Political Analysis". 2nd edition. Prentice Hall of India Private Ltd. New Delhi.
- Extension Digest (1995) Participatory watershed management. MANAGE, Hyderabad. Vol 2.
- Extension Digest (1995) Handing over stics to farmers. MANAGE, Hyderabad. Vol 3&4.
- Felt, J.H. (1974): "Gatekeepers in Agricultural Information Dissemination". Paper presented in Cornell-CIAT International Symposium on Communication Strategies for Rural Development. March 17-22. CIAT Headquarters, Cali, Colombia.
- Fromm, E (1956) "The Same Society" Routledge and Kegan Paul Ltd. London.

- Hall, A.D. and Fagen, R.E. (1968): "Definition of Systems in Walter Buckley (Ed) Modern systems Research for Behavioural Scientists. Aldin Publishing Company. Chicago, U.S.A.
- Jacobs, P and Munro, D.A. (1978): "Conservation with Equity Strategies for Sustainable Development". IUCN Publication, U.K.
- Khoshoo, T.N. (1990): "Towards a Sustainable Society". The Times of India, Niew Delhi, 2nd March.
- Laflin, M. (1980) "Environmental Communication: New Roles Hard Choices". Development Communication Report, No. 65, Arlington, U.S.A
- Laing, R.D. (1973): "The Politics of Experience". Ballomtine Books, Inc. 101 Fifth Avenue, New York.
- Leagans, Paul, J (1971): "Extension Education and Modernization" in Leagans, Paul, J and Loomis, C.P. (Ed) Behavioural Change in Agriculture Concepts and Strategies for Influencing Transition, Cornell University Press. Ithaca & London.
- Marcuse, H (1964: "One Dimensional man". Routledge and Kegan Paul Ltd. London.
- Marx, K (1972): "Alienated Labour" in Finifter, W.A. (Ed) Alienation and the Social System. John Wiley and Sons, Inc. New York.
- Miles, Mathew B (1964): "One Temporary Approach". Dell Publishing Company, Inc. New York.
- Pandey, S.R. (1984): "Alternative Development Communication Efforts for Science Education in Rural India". Ifda dossier, 39 January/February.
- Pietila, H (1990): "Environment and Sustainable Development". Inda dossier 77 May/June.
- Rapport, A (1968): "Modern Systems Research for Behavioural Scientists" Edited work by Walter Buckley. Aldin Publishing Comany, Chicago, U.S.A.
- Seeman, M. (1959): "On the Meaning of Alienation". American Sociological Review, 24.
- Shiva, V (1989): "Staying Alive Women, Ecology and Survival in India". Kali for Women, N 84 Panschila Park, New Delhi -17.
- Stephen T. S. (2003) Basic principles of project formulation for voluntary organizations. PDC net work, Bhubneshwar 6.
- Westley, Bruce, H and Maclean, Malcolm, S (1957): "A Conceptual Model for Communication Research". Journalism Quarterly, 34 (31-38.

Citation: National Workshop on Communication Support for Sustaining Extension Services. 17-18 February 2004 Eds. **Dipak De**, Basavaprabhu Jirli and K. Ghadei., Department of Extension Education, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, (India).