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ACTION RESEARCH FROM CONCEPT TO PRACTICE:  
A STUDY OF ACTION RESEARCH APPLICATIONS  
WITHIN INDONESIAN COMMUNITY EDUCATION  
AND DEVELOPMENT PROGRAMS

A Dissertation Presented

by

DOUGLAS RUSSELL DILTS

Submitted to the Graduate School of the  
University of Massachusetts in partial fulfillment  
of the requirements for the degree of

DOCTOR OF EDUCATION

September, 1989

School of Education

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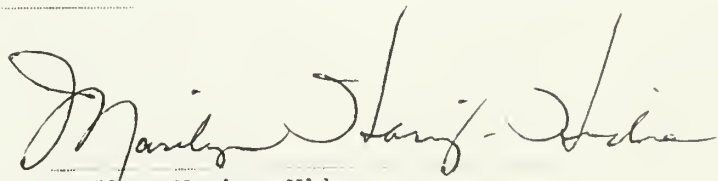
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This dissertation grew out of over five years of experience with actual programs and people in a variety of settings in Indonesia.

Having 'grown-up' on nonformal education during the late 1970's, the pursuit of Action Research as a more encompassing, and more sharply analytical approach to community education and development was a natural and logical extension of previous practice. Between my 'nonformal education period' and current efforts in Action Research came a sojourn at the Center for International Education. During this period many friends, professional colleagues, and teachers contributed greatly to my knowledge and perceptions of nonformal education in general and Action Research in particular.

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ABSTRACT

ACTION RESEARCH FROM CONCEPT TO PRACTICE:  
A STUDY OF ACTION RESEARCH APPLICATIONS WITHIN  
INDONESIAN COMMUNITY EDUCATION AND  
DEVELOPMENT PROGRAMS

SEPTEMBER, 1989

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This study details the evolution and application of Action Research methodologies within Indonesian community education and development programs. During the last five years a concerted effort has been undertaken to define, test, refine, and apply Action Research within a variety of programmatic settings. In this context, Action Research has proven to be an important tool for clarifying practice and allowing for more congruence between espoused values and actual programs at the community level.

The first part of the study concerns the conceptual terrain of Action Research; especially its relation to the dominant research paradigm and problems therein. Subsequently, Action Research is discussed in terms of its relation to other 'new paradigm' methodologies such as participatory research. The current Indonesian application context is described in order to provide background for the case studies.



The second part of the study documents and analyzes several representative case studies from Indonesia. The cases involve examples of *Policy Oriented Action Research*, *Village level participatory Action Research*, and a *Field-based Training Program for Action Research*.

Through the case vehicles, a number of key Action Research components are highlighted and analyzed including levels of participation, research structures, and approach models. Other issues emerging from the study include the role of nongovernmental agencies (NGO's), the effectiveness of support networks, and idea of sustainability. The final chapter of the study attempts to draw findings from experience that will answer basic questions and provide suggestions for those wishing to pursue or support Action Research programs.

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## CHAPTER I

### INTRODUCTION

#### Background

Young staff members of an Indonesia domestic private voluntary agency, many of them former student activists committed to social change, conduct an in-house workshop to create questionnaires for a quantitative baseline survey. The elaborate 15 page instrument resulting from the process will be administered to a pre-selected sample of villagers by trained interviewers. From government sources they will collect information on primary school enrollments, employment patterns, landholdings, and household incomes. Through analysis of this information target communities will be identified and initial programs designed.

This standard first step, while in line with prevalent development practice and informed by basic research techniques; seems oddly out of synch with the espoused goals of the organization in general and this program in particular. The program is geared to promote 'Alternative Education' with the goal of empowering poor communities and developing critical thinking capabilities within the community through a process of 'grassroots participation' (LPTP, 1982, p.3).

In another setting, government officials in charge of what is mandated by Ministerial Decree (INMENDAGRI 1984) and reinforced by contract obligations (UNICEF MPO,1984,p.1) to be a "participatory, bottom-up integrated social services program" develop all implementation

plans with sectoral officials at the municipal level, four administrative levels away from the 'community'. Program decisions are based upon surveys coordinated from the national level comprising census information, results from contracted surveys, and case studies developed by local university social scientists. Program plans will be presented for community approval, and hence 'participation', only after this process is complete.

These scenes, with slight variations according to sectoral agency needs, i.e. in-kind contributions from the community, are being repeated as governmental and non-governmental agencies plot the course of development and attempt to engineer the social reality of millions of people as well as the allocation of millions of dollars worth of increasingly scarce resources. All of these efforts will be prefaced by research of one form or another whether in the form of local baseline surveys, needs assessments, 'rapid assessments', or higher level policy research.

All of these research activities will share certain characteristics: 1) research is separated from action both in terms of time and in terms of actor, and 2) due to the locus of power and money, outsiders will do the research while the supposed beneficiaries will be the passive objects of research.

Are there no alternatives to this scenario? A glimpse of one possibility comes from an interview with a villager from Pancur village in Central Java, at a small stall in the village with the sign '*Kios Saprodi*' (The Saprodi Store) attached to the roof. This cooperative store was built and is run by the *Sumber Makmur* farmers association comprising some 50 small holders and farm workers from the village.

The stall is basic, with only a kerosene lamp providing illumination. Visible stacked on the dirt floor are bags of fertilizer, different types of pesticide, and hybrid seed varieties. Despite the simple appearance, Murtadli, the coop manager estimates that they distribute monthly around three tons of fertilizer, one thousand liters of pesticide, and nearly all of the seeds used by members of the group. Prices are well below the market level due to bulk purchasing, and members can buy on credit in line with group regulations.

"But doesn't a coop like this hurt other small traders in the village?" asks the visiting LP3ES staff member.

'No! before we started this coop we did our own research on the local system, analyzed the situation, and this coop is the result. The only people hurt by this coop are the local loan sharks!' emphasized Murtadli.

(Mudatsir,1987,p.2)

In this village and fifteen others like it along the North Coast of Java an Action Research program has been evolving since 1984 which now involves some 170 village organizations. In each of these groups, Action Research has become institutionalized and poor villagers talk matter of factly about their 'research' activities.

### The Problem

During the last decade the vocabulary of most social development programs has begun to incorporate the terms 'people's participation', 'self-reliance', 'bottom-up planning', 'people-centered development', and 'sustainability' both within policy statements and within the objectives of individual institutions and programs. In the Indonesian context, these terms have found their way into the State Guidelines for Development (GBHN) to the extent that a change of role for the government is called for wherein communities will be the 'subjects, not



the objects' of 'bottom-up' development and where the government becomes a 'supporting factor' (Rustam, S. 1988, p.1).

Unfortunately, such a substantial change in concept and practice cannot be decreed into existence. In most cases rhetoric is allocated to the new concepts, while resources are poured into reiterations of conventional approaches (Honadle and VanSant, 1985, p.95).

This lack of congruence between concept and practice can be attributed to a variety of sources. Assuming the political will is present, a lack of suitable methods and approaches will hinder change. More often, the degree of institutionalization of the conventional paradigm and the vested interests that hold it in place are underestimated. In either case, the implementation of policy objectives incorporating participation, self-determination, and people-centered development, is greatly constrained.

In the Indonesian context, the political-economic impetus for change in practice as well as policy is building rapidly. Economically, depressed oil prices, stagnant GDP growth, a growing "dependency burden"(1), rapid growth of the debt-service ratio, and hence shrinking government development budgets are everywhere evident (Syahrir, 1988, p.19). Due to this, the government, as well as funders like the World Bank and the Asian Development Bank, are increasingly stressing cost recovery issues, which at the program level translate into contributions in cash or in-kind from the beneficiary community denoted as 'community participation' (Dilts, 1987, p. 15).

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1 The 'dependency burden' is a concept developed by Indonesian senior economist Dr. Sumitro Djojohadikusumo reflecting the number of persons who must be carried by a single productive citizen, and is used in lieu of any meaningful figures on employment. The current dependency ration is put at 1:4.

Politically, the move away from the 'floating mass' concept<sup>(2)</sup> in recent years and signs of polarization at the community level, as only certain layers of the population are able to make use of new programs and inputs, make some form of democratization and institution building at the village level a necessity if class stratification, and hence a repeat of Indonesian history of the 1950's and 1960's, is to be avoided (Huesken, 1988).

This situation has not gone unnoticed. Concerned social scientists have voiced their concern and dissatisfaction over a situation in which social scientists become "mere technicians" (Sherif, 1968) dealing with arcane research tools and reducing humankind to "an aggregate of meaningless behaviors" (Sanford, 1970, p.11). Calls for 'another development' or 'people-centered development' coming from social scientists and development professionals have, if anything, gotten stronger. (Chambers, 1986) (Korten, 1985).

Field practitioners from non-government agencies are caught in a trap. In order to have a voice and be taken seriously, they must try to speak the language of the 'technocrats'<sup>(3)</sup>. Additionally, many NGO staff members are former activists from elite universities where they were carefully schooled in macro-economic development models and quantitative research <sup>(4)</sup>. While maintaining strong commitments to

- 
- 2 In the early years of the New Order Government political parties, and most other organizing activities, were banned from the villages in Indonesia with the justification that development needed complete government control and community stability.
  - 3 In the Indonesian context the term 'technocrat' has a particularly strong connotation in reference to the University of California trained economists (the 'Berkeley Mafia') who have planned and guided the last 20 years of New Order development policies and programs.
  - 4 A disproportionate number of current cabinet ministers come from either the University of Indonesia Faculty of Economics or from the Bandung Institute of Technology.

democracy, local self-reliant institutions, and participatory programs, they have grown up with a very limited model of developmental science and hence have little experience or education to draw upon when trying to re-orient their methods and approaches.

Both groups feel a lack of congruence between values, conscience, and objectives vis-a-vis the methods they employ in their daily work. Social scientists can only attempt to make their research 'more relevant' (while remaining with acceptable standards) (5) while community level practitioners attempt to make their research activities less alienating and more accessible to the communities they serve.

#### Purpose

Over forty years ago Kurt Lewin defined Action Research as "research oriented toward social problems and social action, research with social action, and research as a part of social action" (Lewin in Festinger, 1980, p.139). This concept as put into action by the Center for Group Dynamics and a wide range of social scientists, trainers, and community activists in the succeeding years would seem to offer a satisfactory way out of the dilemma caused by the institutionalized separation of research and social action. Nonetheless, despite periodic resurgence, Action Research has remained on the perimeter and has not found its way into the hands of many in need of such a paradigm. In the meantime, the split between research and action has become more rigid, legitimized, and institutionalized within the world of development.

---

5 From the author's direct experience with research programs in three major universities, even conventional qualitative methodologies are most often treated as unacceptable by most faculty committees.

This study documents and analyzes a process wherein concerned social scientists, community activists, and local communities worked together to try to further define and operationalize Action Research within the Indonesian development context. A burgeoning literature since 1975 has been noticeably weak in the portrayal of actual field applications of Action Research. Much of the current debate has been co-opted by an intellectual elite speaking in the name of the oppressed. If the actual users of this model remain on the perimeter of the debate, the current resurgence of interest in Action Research may be only temporary, destined to fall into the dustbins of development theory along with other slogans and short-lived fashions.

This study comprises reflection upon five years of work undertaken to develop and apply Action Research programs in the field in Indonesia. Through this process a better grasp of the parameters of the concept will be generated along with an analysis of where and how Action Research can be effectively introduced and applied. The end goal is to further delineate the nature and limits of Action Research while providing clear guidance as to when and how its use is appropriate in the field. In essence, this study goes from concept to practice and back to concept as Action Research models are developed which are appropriate within specific institutional and social contexts.

The general questions guiding this study are:

1. What is the dominant/traditional research paradigm and what is its relationship to social action programs?
2. What is the developmental history of the Action Research Model and how has this model been conceptually and operationally adapted to the Indonesian context?
3. Of what value is Action Research within Indonesian community education and development programs?

4. What is the current Indonesian political and economic context, and how does this affect the development and application of Action Research?
5. What factors promote/constrain the viability of Action Research within particular programmatic settings?
6. What are the possibilities for future Action Research development in Indonesia, and how might these efforts be supported?

During the execution of the study and the actual implementation of field level Action Research programs in Indonesia, additional issues arose. These issues reflect the practical, operational nature of this study, and the attempt to further define concepts through direct action. Most of these issues come from field practitioners involved in the actual implementation of Action Research programs across a variety of program contexts. The issues give rise to the following operational questions:

1. What is the relation between Action Research and community development? (Cases II and III)
2. What factors will promote or constrain the application of Action Research approaches at the field level? (Cases II and III)
3. What is the relationship of non-governmental development organizations (NGO's) to government programs and agencies, and how are these NGO's utilizing Action Research? (Case I)
4. How have different organizations defined and operationalized specific Action Research models within their work? (Case III)
5. How can Action Research be utilized to replace conventional research components within complex institutional settings? (Case I)
6. How do nonformal, participatory methods fit within the Action Research approach? (Cases I,II, and III)
7. What type of documentation is generated by Action Research at various operational levels, for whom and by whom? (Cases I and II)
8. What issues must be dealt with when developing and implementing training programs in Action Research? (Case III)
9. How does Action Research deal with the issues of participation, sustainability, and local institution building? (Cases I and II)

## Methodology

True to the tradition of Action Research wherein systems are studied via change producing interventions, this study is by nature embedded within a specific time and context. The author has been a key player within a long term process of conceptual analysis and collaborative effort designed to define, operationalize, test, and disseminate Action Research models. This goes beyond the concept of even 'militant observation' since the author has evolved just as surely as the programs during this process.

After initial inquiry into conceptual underpinnings (Dilts, 1983, 1985); collaborative relationships were established with a number of private and government agencies intrinsically attracted to the idea of Action Research. Initial workshops were held (WALHI-IDRC, 1984; YIS 1984) to determine levels of interest and current conceptualizations. Subsequent to this the Indonesian Action Research Network (*Jaringan Aksi-Riset Indonesia*) was formed. This network involves more than a dozen Indonesian private voluntary agencies as well as a number of government institutions and concerned individuals.

Actual methods used in the field include a range of participatory techniques for information gathering, group analysis, action planning, and reflection/evaluation. Specific techniques employed include community 'mapping', photo-novella creation, group 'structured experiences', 'meta-planning', open interviews, and other special techniques used directly in the village in forums, meetings, and more formalized training sessions.

This study represents documentation of events plus a continuation of the research-action cycle. This study is not a re-write of history in

terms of a new concept. All field activities documented were undertaken within an explicit Action Research framework and with the express goal of further testing and developing the concepts and methods necessary for effective Action Research programs.

Much has happened during this period. To some extent, the original questions have changed as field practitioners have been involved and given an ear. Less importance has been given to the theoretical questions resounding in international seminars while more emphasis has been placed upon practical, operational questions. This study also acknowledges how much has been left out. While the core of the study revolves around the exploration of three major case studies, the study is notable for its exceptions in that another dozen cases that have evolved from the activities of the Action Research network are equally worthy of attention

### Organization

Following this introductory chapter, the study is organized into the following Parts and Chapters:

PART I: CONCEPTUAL AND SITUATIONAL CONTEXT

Chapter I: Introduction

Chapter II: A Critique of the Dominant Research Paradigm and its effects upon Social Action Programs.

Chapter III: The Emergence of Alternatives including a review of 'New Paradigm' research and a developmental history of Action Research and similar paradigms such as Participatory Research.

Chapter IV: The Context of the Study giving an overview of the unique developmental context faced by Action Research practitioners in Indonesia, especially with reference to the spread of Action Research approaches within the Indonesian Non-Governmental Organization (NGO) arena.

PART II: CASE STUDIES OF ACTION RESEARCH APPLICATION IN INDONESIA

Chapter V: Introduction and Methodology including a review of the conceptual and analytical frameworks applied to the cases

Chapter VI: Policy Oriented Action Research: A Study on Beneficiary Participation in Small Scale Irrigation.

Chapter VII: Researchers from the Village: Action Research Institutionalized in Rural Villages

Chapter VIII: Action Research Training for NGO's: further refining the concept and developing methods of dissemination through training

Chapter IX: Analysis and Conclusions: Analysis of case experience.



CHAPTER II  
A CRITIQUE OF THE DOMINANT RESEARCH PARADIGM  
AND ITS EFFECTS  
UPON SOCIAL ACTION PROGRAMS

Most social action programs, whether undertaken by government bodies or private agencies, are in nearly all cases preceded by research activities. The rhetoric of development has shifted to include new concepts and terminologies such as 'participatory', 'sustainable', 'self-reliant', and 'process oriented', but within the context of the new rhetoric, the same conventional methods are applied. These methods remain quantitative, formal, and 'objective', e.g. usually conducted by paid professional outsiders. The pre-occupation with data, numbers, formulas, and statistics remains strong. The domination of the traditional research paradigm remains intact.

The *traditional research* paradigm referred to here is anchored to logical positivism and empiricism, to the extent that some term it the 'positivist-empiricist' approach (Harre, 1981). This approach, flowing from methods developed for the natural sciences, deals with the determination of fixed laws, or sets of laws compiled into theories, explanatory of observable phenomena under specified conditions. Control of variables, methodological purity, and theory of significance allow for objectivity and the extraction of 'facts' from the complex flow of experience. The preferred methodology for this tradition is the experiment, an artificially created reality where variables can be closely controlled.

This paradigm is greatly concerned with *validity*. Within this orthodoxy measurement, and hence correct measurement methods, are of

utmost importance, and a valid measure is one that "measures what it purports to measure" (Reason,1981). One key issue is internal validity, a concern with the way experimentation is conducted and experimental method. Entire literatures have arisen dealing with various validity issues including convergent validity (similar results from different approaches), discriminant validity, construct validity, and reliability (the validity denoted by replicability). Clearly, these traditional notions about validity are about methods and not about people.

Action Research and other alternative paradigms are also concerned about validity, but define it so differently that a near complete break with traditional conceptions is heralded. Numerous critiques of existing conceptions have been proposed, while pragmatism and critical theory offer new foundations for the knowledge creation and justification process that openly unite research and action, include values, and judge validity by going back to the social context giving rise to the research in the first place.

Despite calls over the last 30 years for incremental 'learning from experience', we are still caught trying to answer the same set of inter-related questions through the use of the same research methods. We are left with the impression that little forward progress has been made. Learning and change seem to be inhibited by a powerful, possibly unconscious, status quo rooted in the traditional paradigm. Perhaps the very nature of the established research process, the activities generating and justifying knowledge, prevents developmental learning and dooms social action programs to repeat past mistakes.

This reification of fixed patterns and practices hinders the role that research plays in social action programs. Reification in this context refers to a process of compulsory repetition of established patterns which may encompass our entire endeavor; "reification may involve a whole institutional order, specific roles, or one's own identity" (Mezirow, 1980, p.11). Once this process is in place its continued existence is guaranteed by the establishment of supporting institutions and vested personal, economic, and political interests which make escape from the pattern increasingly difficult.

The same configuration that drives individuals to neurosis moves society to establish institutions. Like the repetition compulsion from within, the institutional compulsion from without brings about a relatively rigid reproduction of uniform behavior that is removed from criticism. (Freud in Habermas, 1968, p.276)

*The traditional social science paradigm* is a powerful example of reification, reflecting "a replay of the power relationships embodied in the larger society" (Park, 1984, p.1). Those with power conduct the research (or hire social scientists for this purpose) while the less powerful remain the objects of research. Results of research are then used to formulate what will be 'done to' or for the less powerful, of course with the latter's 'participation'.

This syndrome is accentuated in Third World contexts, such as in Indonesia. Many Third World societies provide fewer checks on the exercise of power than in more plural societies. Powerful economic, political, and structural imbalances justify the spectator role of the powerless as they are 'induced' to develop. Whole classes and sub-classes of experts have emerged at the national level for policy formulation, research design, feasibility analysis on one side and for project design, planning, management, and evaluation on the other. As

the endeavor has become more internally complex and compartmentalized it has also become increasingly trivialized: terms such as social justice, self-reliance, and people's participation become mere slogans with little relevance to the variables of macro-development theory. Economic formulas and sophisticated models replace discussion of concrete reality. In this 'quantophrenia', nothing is real until assigned a number.

### Critiques of the Dominant Paradigm

Criticism of the traditional research paradigm comes from many corners and takes many forms, a few of which will be listed below:

The Myth of Neutrality, Objectivity, and Method: the validity of traditional research is predicated upon 'objectivity'. Criticism of this has come from many including arguments concerning 'countertransference' (Devereux,1981) wherein researchers are naively unaware of the subjectivity of their observations, hence research becomes a form of 'autobiography'(1). Other studies have noted the pollution of objective methods by such things as the Hawthorne effect, self-fulfilling prophecies, and subject approval-seeking.(2) Further, some state that due to the overwhelming concern with objectivity and method, traditional social science models fundamentally neglect to study what is actually occurring (Torbert, 1981). Others state that the reason

- 1 Jane Goodall, conducting her chimp research in the late 1960's 'Age of Aquarius' found them totally non-violent and peace-loving: how did she miss the cannibalism she recorded 10 years later as war broke out in countries surrounding her preserve? Similar criticisms have been leveled at Margaret Mead's famous 'Coming of Age in Samoa'.
- 2 As to approval seeking, remember the famous turn of the century case of Herr von Osten's horse which could solve mathematical problems only for those persons who knew the answers, e.g. the horse did not do math but rather interpreted approval signals from questioners in order to know when to stop stamping .

behind the fragmentary and incomplete view of humankind emanating from the social sciences is that methods applied are indeed fragmentary and incomplete. (Reason, 1981)

Moral and Political Critiques: traditional research creates all the forms of alienation outlined by Marx and becomes "just another agent of authoritarian social control" (Rowan, 1981). Similarly, traditional research is morally wrong in that it denies persons the right to participate in decision-making affecting their own needs and interests, and as such defies the moral principle of respect for other persons (Heron, 1981), reducing people to sets of variables and hence "mutilating integrity" (Diesing, 1981). This denial of rights has become institutionalized and integrated with other power relationships in society such as government, business, and education, all of which reflect an imbalance of power and a denial of rights (Brown and Kaplan, 1981).

Lack of Meaning: traditional science says nothing about meaning; human history and interests have been removed from social science as barriers to its progress (Held, 1980). Again, the concern with method precipitates "the perennial urge to retreat from depth to surface" (Harre, 1981, p.8) yielding much analyzed detail about little of meaning.

Corruption: a corrupt model of social science has developed wherein researchers must choose between "serving God or serving Mammon" . What research is undertaken and how it is conducted takes into consideration mostly the personal needs of the researcher in terms of status, peer acceptance, funding, convenience, and publishability, as if the entire research establishment was developed as an arena in which the researcher attempts to prove his competence (Sanford, 1981).

Reason and Rowan (1985) and other advocates of 'New Paradigm' research list a number of objections to the dominant paradigm including:

Model of the Person: humans are isolated from their normal contexts and stripped of all that gives their actions meaning.

Positivism: the language of independent and dependent variable definable for persons across social contexts.

Reductionism: the study of variables instead of whole persons, communities, and groups.

Quantophobia: the emphasis on measurement wherein results are often statistically significant but humanly insignificant.

Deception: the lying required for certain experimental designs and the withholding of information from 'subjects'.

Contamination: attempts to eliminate the encroachment of uncontrolled variables are usually unsuccessful.

Detachment: researchers actually trying to know as little as possible about the phenomena under study.

Conservatism: studying those at the bottom while getting money from those at the top.

Low utilization: few of the results of traditional research are ever actually used since few involved have any commitment to it.

Language: reports are written for the specialist expert and in general mystify the public.

Determinism: the independent variable coerces the dependent variable into performing correctly, setting-up coercive relations even in the laboratory

The Scientific Fairy-Tale: the storybook image of science often portrayed has little to do with the way science is actually conducted.

A large body of literature critical of the traditional research paradigm has accrued, albeit some of the critiques border on hysterical and smack of sniping from the sidelines as in , "The twentieth century is an era of grotesque incongruities" (Torbert, 1981,p.146) or "it is obscene to take a young researcher and drive him to manipulate 'variables', count 'behaviors' and observe 'responses' (Reason, 1985, p.xiii). The conceptual looseness (re: Maslow), range of bedfellows (from professors to activists), and even language (e.g. Reason's 'subjectively-objective') in the anti-traditional camp are factors ensuring its place on the fringe.

In this regard, the *Critical Theory* of the Frankfurt School is important in that it seems to provide a more coherent and well-founded critique offering new views of epistemology which might be used to underpin alternative types of research. Some of the key points of this school of thought need to be brought into this discussion.

#### The Critical Theory Perspective

*Critical theory* is the response of a number of theoreticians including Habermas, Marcuse, Adorno, and Horkheimer to what they see as a conservative and ideology-bound social science. They see the social sciences as having adopted an empirical science approach that does not fit the study of humankind. Specifically, they rebel against the current dominant epistemology of social science.

These thinkers go back to the roots of the Judeo-Christian tradition to explain the current scientific outlook. In this light, the world was viewed as created for use by humankind (in this case the masculine, man). Only after the Enlightenment did mankind come to have

the tools, including scientific method, that were adequate to the subjugation of the natural world. The founders of the empirical tradition such as Bacon and Descartes worked to banish the spirits and bring the knowable world under the immutable laws and rules governing interaction and all natural phenomena. These laws helped *predict*, and hence *control*, and subsequently *exploit* the natural environment.

The next logical step was for *humankind itself* to be treated as another 'nature' and be brought under the rule of prediction and control. Humanity became an object of study just as nature before it. Via scientific method, society could be brought under control for exploitation. In this sense, science becomes less a pursuit of knowledge than a feeder system for a technological ideology that seeks to *engineer* the workings of human society. The dimension of history was of necessity removed to allow for the study of humankind as a static entity governed by 'eternal principles' derived from structural patterns. Questions of *values and meaning* were banished like the pre-Enlightenment spirits: any insight derived outside of the verifiable world of scientific empiricism was held to be soft and suspect. Needless to say, there were strong critics of this outlook well before the emergence of the Frankfurt School:

This compulsion to form concepts, genera, forms, ends, laws, 'one world of identical cases', should not be understood as though we were capable through them of ascertaining the true world; but rather as the compulsion to adapt to ourselves a world in which our existence is possible. Thereby we create a world that is calculable, simplified, and understandable for us. (Nietzsche in Habermas, 1968, p.296)



Critical theorists have similarities with the Marxist critique of capitalism; however they differ greatly in that they do not see labor-capital relationships as the be all, end all explanation of society and its conflicts. Rather, critical theory attacks the pervading *instrumental rationality* of capitalism that smothers human action and consciousness by reducing everything to quantifiable bits and exchangeable commodities. Science itself becomes a producer of a saleable commodity. Scientists become subservient to other interests; solving technical problems like an engineer but having no say in the identification of significant problems.

The proponents of Critical Theory are not against science per se, but *against scientism*, wherein that which cannot be quantified and manipulated is inconsequential. Values, morals, and historical contexts must be discarded from the outset. As Habermas states it, "in the behavioral systems of instrumental action, reality is constituted as the totality of what can be experienced from the viewpoint of possible technical control" (Habermas, 1968, p.191).

In Critical Theory society is viewed as a *historical event*, not a static entity. Since society was created through willful human action, it is not an occurrence dictated by 'eternal principles' and as such what humanity has made, it can also change or unmake.

The pervasiveness of instrumental rationality, and the reduction of everything to causal relationships without consideration of human will, values, history, or morals creates an oppressive situation of *unfreedom* where the present system is self-contained, and self-perpetuated, by eternal laws. In turn, oppressive beliefs and practices are

unconsciously reconstituted and reified. Human phenomena are transferred out of the realm of human agency, frozen like nature within a structure of immutable laws (Mezerow, 1980, p.10).

The social sciences strengthen this conception through their empirical approach to the social world. Some, like Marcuse, have taken the analogy further by stating that science was created expressly for control, with the social world being treated in laboratory fashion, like the natural world. The social world is ordered in terms of what can technologically be done to it; "we are re-creating the world in accordance with our technical exigencies" (Marcuse, 1961, p.153).

### Lessons from Critical Theory

Critical Theory initiated the call for a new epistemology, or at least the serious recognition of other theories concerning the creation and validation of knowledge. Critical Theory calls for knowledge that is generated in close proximity to action and is authenticated through action. Critical Theory represents an *epistemological break* with conventional scientific paradigms in that it is openly emancipatory in its intent (Hesse in Lather, 1986,p.258).

This *epistemological break* is lacking in other literature dealing with alternative research. Many times the new methods can justify themselves only by citing what they are not. The key exponent of the Frankfurt School, Habermas, severely critiques the characteristics of current social science which deal solely with instrumental rationality. He posits other bases for for valid knowledge which will in turn call for other methodologies while accomodating history, values, and moral choices.

To Habermas, practice itself can become 'theorizing'. He differentiates between *empirical* and *interpretative* sciences. Particularly, he illuminates *hermeneutics* as a process dealing with interpretation and communication wherein knowledge is created via the interpretation process, not merely revealed. Hermeneutic knowledge deals with interactions, with patterns, and is concerned with *meaning* rather than *causality*.

It is a question, rather, of a meaning that, even if it is not intended as such, takes form in the course of communicative action and articulates itself reflectively as the experience of life history. This is the way in which 'meaning' discloses itself in the course of a drama. But in our own self-formative process, we are at once both actor and critic. (Habermas, 1968, p.260)

Hermeneutic knowledge deals with what Habermas terms communicative action; a process not governed by empirical rules but by a mutual understanding of intentions. It deals with the meaning of communicative experience, and is constantly shaped by existing norms and the actors involved in the communicative action itself. Communicative action serves practical interests, as differentiated from the technical interests which are concerned with reduction, prediction, and control. Here Critical Theory tries to break with conventional, limiting types of knowledge and methods of creating valid knowledge. Critical Theory is interested in other kinds of knowledge and other ways of knowing beyond empirical objectivity.

Of importance here is the emphasis upon mutual communication and intentionality. Within this framework, only when a reality is shared and agreed upon does it become a valid depiction of the social world. In this sense, Critical Theory lays the groundwork for 'collaborative inquiry' (Torbert, 1981), 'dialogical research' (Randall and Southgate,

1981), and other forms of knowledge that place a premium upon the interaction of knowing subjects. This is especially important in the social sciences, that stand in a "subject - subject relationship with its 'field of inquiry', and not a subject - object relationship". (Reason, 1981, p.xvii).

Of crucial importance to alternative research in general and Action Research in particular is Habermas' concept of power interests and emancipatory action. Whereas empirical prediction and control efforts are covered under the domain of *technical interests* and *instrumental action*, and interactions not governed by empirical laws in the domain of *practical interest* concerned with *communicative action*, *power interests* and *emancipatory action* form an entirely new domain, and probably the most important domain for field practitioners dealing with the issues of empowerment, participation, democratization, and social change. Whether they are aware of it or not, this domain underpins much of the 'alternative research' now being pursued (Reason, 1981).

Communicative action and knowledge are concerned with norms and patterns, while emancipatory knowledge deals with individual self-knowledge and how internal forces and external environments limit our control over our own lives and limit our options. This knowledge is emancipatory in that it allows us to differentiate between factors under our control and factors that we have merely assumed were beyond our control. This domain deals not with human problems per se, but with the underlying *structural causes* of these problems and hence can involve a fundamental re-shaping of how we see our place in social history.

They (the Critical Social Sciences) attempt to determine when theoretical statements grasp invariant regularities of social action as such and when they express an ideologically frozen relations of dependence that can in principle be transformed. (Habermas, 1968, p.167)

This type of emancipatory knowledge and emancipatory action is the crucial part of Critical Theory informing adult education, Action Research, and other forms of alternative research. A recurrent problem for proponents of 'alternative research' has been the development of solid epistemological underpinnings, plus the ability to abandon long held practices for the uncertainty of a new paradigm.

The distinctions drawn between *instrumental action*, *communicative action*, and *emancipatory action* have immediate methodological ramifications within the Action Research model as attempts are made to develop a more complete, inclusive, and integrative picture of a given social reality. Additionally, these domains help to clarify and order many of the nonformal education and participatory techniques actually used at the field level.

- *Instrumental Action* correlates with conventional needs assessment or research techniques designed to gather the 'facts' necessary for program formulation. As with conventional research in general, these methods work best for controlling the physical environment, i.e. building physical, institutional, or programmatic infrastructure.
- *Communicative Action* correlates to the many group analytic/projective techniques or structured experiences designed to illuminate personal/group history, values, perceptions, and experience. Action in this realm deals with norms, culture, and patterns of behavior and interaction that have been reified within individuals, often sub-consciously. This domain deals the creation of knowledge through the interpretation of a given social reality, hence giving meaning to sets of 'facts'.

- *Emancipatory Action* broadens the brings the learnings of *communicative action* to bear on existing social reality. Possible actions are viewed not merely technically, but in terms of values and underlying structural causes. At this level individuals and groups act to transform their reality and are empowered to shape their own lives.

#### Other Supporting Paradigms

Practitioners of Action Research and more recently, various forms of 'alternative paradigm research' still find themselves caught 'between God and Mammon'. Despite the emphasis on the inclusion of values, history, morals, and practice, they often end up in a position of apologetics having retained empirical or experimental methods which make their results suspect even in their own eyes.

The emphasis on practical problems, meaning, and usefulness brings to light the pragmatist philosophy as espoused by John Dewey. The pragmatist view of action forms a strong basis for experiential learning, "practice (in the pragmatist view) is where the problems that originate research arise and where one must return for a real accounting of the validity of knowledge" (Oquist, 1977, p.21)

Pragmatists would find Action Research and 'alternative paradigm research' eminently scientific. To them, "the production of knowledge begins with practical activities...It is a mode of directed, practical doing. The objective of science is the resolution of practical problems" (Oquist, 1977, p.19). The epistemology of the Pragmatists breaks down the theory-action dichotomy, and rejects the 'spectator' objectivity of empirical or logical positivist science.

Dialectical materialism also supports Action Research and 'alternative research' as valid, in some ways for the very reasons that empiricism or logical positivism reject them. In either empiricism or

logical positivism the injection of values and interactive exchange between the subject and object of inquiry vitiates the knowledge produced. Dialectical materialism states that knowledge must be as dynamic as the reality it attempts to describe. As in Pragmatism, knowledge is justified by social utility; as stated in Marx's 11th Thesis on Feuerbach, "The philosophers have only interpreted the world differently, the point is to change it".

#### Summary

The problem for Action Research and 'alternative paradigm research' is not science per se, but a 'scientism' that recognizes only one type of knowledge and only certain methods for arriving at this knowledge. Even as demands upon social research to perform important and effective social roles in improving participation and promoting democratization have increased, especially in developing country contexts, the 'lock-up' of the dominant paradigm has become more explicit and oppressive. Critiques of the dominant paradigm are abundant, but they seldom tell us what to do instead. A broadening of perspectives concerning the nature of knowledge and the epistemological basis of knowledge is a first step. This gap has been tentatively bridged by Critical Theory. The task now is to develop research practices in line with value, political, and moral positions that will indeed 'address important issues that really matter'.

## CHAPTER III

### THE EMERGENCE OF ALTERNATIVES

...science is but the lengthened shadow of  
dedicated human beings.

(Rogers, 1964, p.22)

Dissatisfaction with the dominant traditional paradigm and supportive institutional artifacts has been strongly articulated from many corners with an increasing tone of exasperation:

We have separated--and institutionalized the separation of--everything that from the point of view of Action Research (everything, I would say, that in the sight of God) belongs together. (Sanford, 1970, p.8)

Via the critique of the dominant paradigm the goals and purposes of an alternative paradigm have emerged. The alternative would include values, commitments, democratization, collaborative involvement, and purposeful social action which would "do justice to the humanness of all those involved in the research endeavor" (Reason, 1981,p.xi). These alternative approaches would let us "get to grips with the messiness of everyday life with people and emerge with some reasonably valid understandings" (Rowan, 1981, p.17) while generating genuinely informed social action (Moustakas, 1981).

Beyond these general goals and purposes we are left with a 'paradigm' negatively defined by what it is not, similar to the dilemma faced by nonformal education during the 1970's when it was defined as anything other than traditional 'schooling'.



### The Profusion of Alternatives

In the late 1960's and 1970's a wide range of alternative methods have arisen in contrast to the dominant paradigm. Much of this can be contained under the rubric of 'Alternative Paradigm Research', "a broad label used to encompass a set of assumptions which contrast with those of the dominant paradigm" (Brown and Kaplan, 1985). Reason and Rowan (1985) list a number of these 'traditions' which in addition to Action Research includes:

Phenomenological Research	(Giorgi, 1975)
Dialectical Research	(Esterson, 1972)
Intervention Research	(Argyris, 1971)
Existential Research	(Hampden-Turner, 1976)
Experiential Research	(Heron, 1974a)
Endogenous Research	(Maruyama, 1978a)
Participatory Research	(Hall, 1975)
(PRA) Participatory Research Approach	(Kassam and Mustafa, 1982)
Pragmatic Participatory Research Approach	(Bryceson, Maniconi, 1982)
Policy Oriented Action Research	(Mustafa, 1982)

To this list of terms can also be added:

Heuristic Research	(Moustakas, 1981)
Collaborative Inquiry	(Torbert, 1981)
Holistic Research	(Diesing, 1981)
Illuminative Evaluation	(Parlett, 1981)
Participative Research	(Brown and Kaplan, 1981)
Conscientizing Research	(Friere, 1975)

Immediate Research	(Frith, 1983)
Research Action	(Sanford, 1970)
Participatory Action Research	(Vals Borda, 1982)

All of these adhere to the goals and purposes listed above and are different in key respects from dominant paradigm models. There is a bit of hubris, however, in listing these titles as 'traditions' in the same way that Basic Research, Applied Research, and Evaluation Research are denominated. One is also hard pressed to differentiate between many of these terms based on their own definitions. Some, indeed, are combinations of one or more poorly delineated terms, as when Brown and Kaplan (1981) state that "Participative Research combines aspects of both Participatory Research and Action Research" without clearly defining just what elements they speak of except to state that the outcomes of their model "include complex perspectives on social realities for changing those realities".

Some earlier attempts at amending dominant paradigm theory and practice, such as Grounded Theory (Glaser and Straus, 1967), Participant Observation (Lofland, 1976), and Formative Evaluation (Scriven, 1968) are rejected as New Paradigm research. These methods are seen as attempts to improve practice and increase utility through adjustments within dominant paradigm practice, while still remaining acceptable to the traditional scientific community. Grounded Theory is rejected on the grounds that none of the concerns of collaboration, action-orientation, values, etc. are incorporated in this model (Rowan, 1981). Participant Observation fails in that the researcher retains objectivity while using the results to his own ends, hence alienating the 'subjects' of research (Reinharz and Maruyama in Reasson and Rowan, 1985).

The debate within the 'New Paradigm' school is often as heated as debate concerning the weaknesses of the dominant paradigm. When such things as values, specific contexts, theories of knowledge/epistemologies, and social action are brought into the equation, the arena for disagreement is substantially widened.

At all levels the problem is one of communicating between groups who hold widely differing views about the nature and significance of what is being done. (Southgate and Randall, 1985)

The problem is further compounded when theorists and practitioners come from a variety of disciplines, inherent interests, and practices including sociologists, psychologists, educators, activists, Third World social scientists, Third World social activists, and organization/management specialists. Further compounding the problem is the fact that there seems to be more concern with terminology and overlapping of terms than there is defining practice. One of the key debates concerning this study is the discussion about the similarities and differences between Action Research and Participatory Research, as will be highlighted in following sections.

#### The Action Research Model

For this study, an argument will be made that Action Research is an adequate model both theoretically and practically. Issues of contextual practicality and viability will be examined 'in situ' via the case studies. Theoretical and developmental issues will be dealt with in this section.

What was Lewin's model?...Action Research consisted in analysis, fact-finding, conceptualization, planning, execution, more fact-finding or evaluation; and then a repetition of this whole circle of activities; indeed a spiral of such circles." (Sanford, 1970,p.4)

Other key components of Lewin's model besides the cycle include the concept that complex social reality can only be studied through intervening in that reality and studying the effects of intervention (Festinger, 1980). The 'Field Theory' pioneered by Lewin forms a recognition of the fact that current realities and situations are held in place by a set of often violent, dynamic forces. Finally, Lewin declared that the objects of research should be 'important issues that really matter'. This value orientation was engendered by Lewin's experience of Nazi Germany in the 1930's and brought to life in his research work with factory workers and minorities. Further than this he was unclear in exactly how Action Research should be labeled and identified: "Research through Action, Research with Action, Research in support of Action" are all suggested (Festinger, 1980). As an operational definition Action Research has been described as the production of knowledge to guide practice with changes in social reality being a part of the research process itself; knowledge is produced and reality changed in a simultaneous, inter-related manner (Oquist, 1977).

This was the legacy that Lewin left upon his death; this and a breed of young social psychologists convinced that their scientific enterprises were not separate from larger social problems. With this background, Action Research has by far the deepest roots of any of the current 'alternative' traditions.

The legacy of Lewin and Action Research is more widespread than many believe, and in many ways the current obsession with developing

more narrow, exclusive, and semantically differentiated 'alternatives' has proven more useful to those creating papers for seminar presentation and scholarly publication than it has for field practitioners utilization.

In terms of *value orientation*, efforts pioneered by the Center for Group Dynamics and its subsequent offspring, the National Training Laboratories, are strongly represented even today. 'Sensitivity' and T-Group training undertaken by the National Training Laboratories still adhere to its original policy of fighting racism, sexism, and oppression (Bradford, 1953).

In terms of *methodological impact*, Action Research has had a powerful effect on a number of fields. For a period in the late 1940's and early 1950's Action Research conducted by social psychologists continued to focus upon 'important issues that really matter', yielding important findings still heavily used in training, education, management, and human resource development. That these pioneering contributions have been forgotten or obscured is not the fault of early Action Researchers.

Many important social phenomena were taken into the 'social laboratory', studied, and re-applied. Studies conducted on group decision making processes (Bales, 1953), competition vs. collaboration (Deutsch, 1942), communication patterns in small groups (Bavelas, 1950), interaction process analysis (Bales, 1958), and factors promoting group function (Fink and Thomas, 1957) form the basis for many of the techniques used by trainers (Dilts, 1983), educators (Palmer and Jacobsen, 1974), managers (Steiner 1980; Clark, 1972) community activists (Dale, Magnani, Miller, 1979) and community development experts working in the Third World (Batten, 1967). If examined closely, many of the

'classic' training exercises (Broken Squares, Force Field Analysis, SWOT Analysis, Managerial Grid Training, Group Dynamics training, and so on) used in everything from management training for large corporations to the training of cadre in rural villages in Indonesia are direct descendants of laboratory treatments associated with Lewin and his followers (Dilts, 1983, 1985).

It is no coincidence that the Action Research cycle proposed by Lewin correlates directly with the 'Experiential Learning Cycle' still used by the National Training Laboratories and is finding its way into many adult/nonformal education programs. Forty years later, models for 'training and practice' of the New Paradigm research again posit a four phase model comprising 1)Acting/Experiencing, 2)Reflecting, 3) Integrating, 4)Planning, and hence a repeat of the same cycle after overall evaluation (Reinharz, 1985).

Beyond this, efforts pioneered by the Action Researchers allowing for such fuzzy variables as 'democratic atmosphere' or 'authoritarian leadership' have underpinned even more conventional social engineering programs. As an example, the current widespread use of groups as 'receiver systems' for development communication programs dates back to Lewin's work during World War II and his discovery of the effects of group discussion and decision making on individual behavioral change (Lewin, 1947). Indeed, the marginalization of Action Research was being bemoaned by many social-psychologists just as its utilization was becoming most widespread amongst actual doers and practitioners(Sanford, 1970).

Another strength of Action Research is the fact that it is accommodative of various *epistemological frameworks*. Most broadly,

Dewey's pragmatism underpins Action Research as a practical effort to identify, understand, and solve real problems. *Validity* is determined by both the inter-subjective reality of the knowledge gained plus the utility of the action spawned through the Action Research process.

This view of validity 'breaks' with positivist assumptions concerning application of natural science methods, the correspondence theory of truth, and the fact-value dichotomy (Bredo and Feinberg, 1982). In pragmatism practice is where problems, and hence research questions, arise, and a return to practice is necessary for any accounting of the validity of knowledge (Oquist, 1977, p.21). As pragmatism breaks down both the theory-action and the researcher-researched dichotomies it is firmly aligned with Lewin's view of action undertaken to resolve practical problems as the aim of social science. Hence the scientific endeavor can begin and end in practical action; generating questions through action and validating new knowledge through further action in a continuous spiral.

In another sense, the emphasis upon meaning within Action Research and the continuous spiral nature of the Action Research cycle resonates with many facets of hermeneutic inquiry wherein knowledge is created through the interpretation process, and not merely revealed through the observation of empirical facts. As Lewin never ceased to point out, tackling practical matters, if accompanied by reflection and analysis, is a never ending source of theory building material. Field Theory, when used as an analytical tool (re: Force Field Analysis), provides a practical example of dialectical analysis applied to real

situations. From this view, the phrase most commonly attributed to Lewin indeed rings especially true, "nothing is so practical as a good theory" (Marrow, 1969, p.25)

Critical social science also provides an alternative to traditional validity measures with the overt inclusion of values and emancipatory goals, and the subsequent rejection of conventional objectivity. Exponents of Critical Theory push for an approach to knowledge building and validation that is interactive and contextualized, and which will submit findings generated to the scrutiny of the researched (Bullough and Gitlin, 1985).

#### Action Research and Participatory Research

*Participatory research* is the variant of 'new paradigm research' that is most discussed/publicized in Third World development settings. Whereas Action Research began with concerned social scientists in developed nations, the Participatory Research movement emerged primarily from the field of Adult and Nonformal Education. Participatory Research makes the claim that it is of Third World origin, although its 'Third World' exponents tend to be from elite classes and most are often foreign educated. The very term 'participatory' seems to have been necessitated by a vogue in development literature.

The emergence of Participatory Research, however, did coincide with the emergence of interest in key Third World educators. Brazil's Paulo Friere introduced methods for problem-posing education and for the development of critical thinking capacities (Friere, 1970, 1974). On a national level adult educators, such as Thailand's Kowit Voraphipat, developed the *Khit Pen* system also geared to the development of critical thinking capabilities such that village adults could analyze problems,



generate alternatives, make decisions, and act (Armstrong, 1984). In Indonesia, Ki Hajar Dewantara's Ideas of *Pendidikan Kedesaan* (Dewantara, 1968) grounded education in the search for local solutions to local problems and found currency in the *Kelompok Belajar* (learning group) nonformal education system.

Rhetoric, if not practice, began to converge during this period. In 1975 the International Council on Adult Education began the Participatory Research Project with the following goal:

To investigate methods of research in adult education and related social transformation programs which focus on the involvement of the poorest groups or classes in the analysis of their own needs. (ICAE, 1977)

The coinage of the debate subsequently engendered includes terms such as social change, transformation, liberation, growth, critical thinking, praxis, empowerment, knowledge creation, structural change, dialogue, conscientization, participation, social action, self-reliance and sustainability, often in dizzying combinations as in:

Participatory Research is a form of praxis, an exercise in empowerment...clearly, Participatory Research has strong reverberations with the Freirean pedagogy; these in fact converge in their goals (reflection and action) and procedures (participation and dialogue). (Park, 1984,p.1)

Broader still is the definition often promulgated by Tandon and Hall of Participatory Research as "an activity that combines social investigation, educational work, and action" (Tandon et al, 1982 p.9). Within this model some even admit that there has been a "blurring of the distinction between research , learning, and action" (Hall, 1985, p.455). To many, Participatory Research was never intended to comprise a complete system from theoretical framework to field methodology.

"Participatory Research is not, and was never intended to be, a new ideological and scientific holistic system" (Vio Grossi, 1981, p. 67).

This apparent openness has caused much confusion and much debate leading to the suspicion that "participatory research is another exercise in self, and other delusion, a new term for 'outsiders' directing community development?" (Colletta, 1976, p.44). Griffith and Cristarella, both adult educators, view the sudden emergence of Participatory Research in the mid-1970's as another diversion of attention to spurious bifurcations:

The adult education field is now confronted with another dichotomy: participatory research versus traditional research. The posing of this dichotomy is insidious in that its sophistry deludes the naive and attracts the dilettantes in adult education. (Griffith and Cristarella, 1977, p.18)

Participatory research shares many characteristics with Action Research including a cyclical, spiralling process model involving analysis, reflection, and action plus the general goal of generating knowledge that will have a direct impact on social systems and structures (Tandon and Brown, 1981). Both Action Research and Participatory Research place high value on promoting the development of human potential, solving immediate problems, and creating useful knowledge (Passmore and Friedlander, 1982).

Many participatory research advocates, however, find Action Research ideologically and politically naive since in their view Action Research, as formulated 40 years ago, assumes that clients and researchers can actually share interests and work collaboratively. Whereas Action Research, at least in the eyes of such writers as Tandon and Brown, assumes that problem solutions acceptable to all parties are possible, indeed Participatory Research sees inherent conflicts of class

interest existing between the 'researcher and the researched'.

Participatory research advocates constantly stress a focus upon work with oppressed groups (Hall, 1975, p.4) and various forms of social revolution; "for the Participatory Research approach, the ultimate goal is the radical transformation of social reality" (Gaventa and Horton, 1981).

Critics of even the 'Participatory Research Approach' have emerged calling the endeavor "oppression morally romanticized" (Kemal Mustafa, 1982). In this vein even the usually revered Paulo Freire is subject to criticism for his "humanistic idealism" (Bryceson, Maniconi, Kassam, p.67, 1982).

Both time and setting have changed between 1940's Action Research beginnings within American Institutions and the advent of Participatory Research amongst the rhetoric of North and South. Strangely, however, most Participatory Researchers in their critiques reach back at least 20 years in finding examples of 'naive' university based social scientists undertaking Action Research, without looking at the many examples of Action Research undertaken by community activists and educators. Action Researchers themselves have already critiqued the early positions of Lewin, et al. plus assumptions of social unity (Sanford, 1970, Rappaport, 1972).

Participatory Researchers, or at least those whose names dominate the literature, often put themselves in a 'more radical than thou' position:

Participatory Researchers are motivated more by commitments to social change and social justice, and more often committed to explicit ideological issues than action researchers, for such commitments in large part fuel their work. (Tandon and Brown, 1981, p.290)

The ideological commitment often found in these viewpoints has epistemological ramifications. Action Researchers are often viewed pejoratively as mere 'reformers' relieving social tension and ensuring the maintenance and reiteration of the status quo. Action Research hence tends to develop piecemeal social reform efforts not resolving underlying conflicts that engender and maintain oppression and powerlessness (Conchelos and Kassam, 1981). Many participatory researchers reject pragmatist epistemologies as lacking in value commitment and socio-historical perspective (Frith, 1983) while embracing dialectical materialism.

The well-known statement by Marx in his 11th thesis on Feurbach that "the philosophers have only interpreted the world differently, the point is to change it" contains an epistemological position concerning the validation of knowledge through the transformation of the object of study. Participatory Researchers basing their work on dialectical materialism demand that the knowledge generation process be embedded within specific groups with determinant socio-historical and structural contexts. (Oquist, 1977)

Indeed, early Action Research literature comes from social scientists. However, since that time many community agencies using Action Research have committed themselves to 'empowerment', 'participation', and community control of the research process. In a reverse critique, the incorporation of fixed ideologies and their requisite epistemologies (historical materialism) defeats participation: "for in radical usage, 'action research' continues to be an elite activity, confined to those who are committed members of the political core group" (Palmer and Jacobsen, 1974). Even advocates of historical

materialism hint at the dangers of diverting attention from immediate problems to macro-abstractions via the implementation of a rigid, dogmatic, and inflexible frame of reference (Kassam, 1982). At the field level, one does not have to look far for examples of how even Freire's methodology, when injected with ideologically fixed goals, becomes more manipulation than participation (Werner, 1980). At base, there are value choices to be made, and the debate concerning Action Research and Participatory Research embodies one such choice that must be made within a particular setting.

### Redefining Action Research in the Indonesian Context

Within the current Indonesian context several specific reasons underpinned the initial choice of the term Action Research over Participatory research:

1. *Jargon:* participation is the most overworked and subsequently confused word in the development vocabulary
2. *Ownership/exclusivity:* Participatory Research has been propogated by a relatively small contingent of vocal advocates who for the most part reject inclusive definitions and the involvement of social scientists in the endeavor. Action Research, in contract, remains more open for interpretation, evolution, and pluralistic involvement of a wide range of actors.
3. *Ideology:* Action Research can incorporate several epistemologies, including pragmatism, while participatory research emphasizes historical materialism as as the primary, if not the exclusive, analytical approach (Frith, 1987).
4. *Historical experience:* in Indonesia memories of the local strain of Marxism propogated by the now banned Indonesian communist party remain strong, and bitter, within nearly all segments of society.

Action Research since Lewin has been utilized by a wide variety of persons, from community activists of the 1950's and 1960's to organizational development specialists (Thelen, 1967). A goal of the

Action Research movement in Indonesia was from the outset to include a wide range of committed social scientists, activists, community development practitioners, and trainers in the endeavor to further define and operationalize the concept. Primarily, the goals have been to incorporate a stronger knowledge generation component into ongoing community development practice as well as to provide an alternative research framework allowing committed social scientists to become directly involved in social change programs.

The strain, or variant, of Action Research promulgated in Indonesia follows the classic pattern laid out originally by Lewin of *analysis, fact-finding, conceptualization, planning, execution, and evaluation*. Within this broad framework, however, the model is further articulated by practitioners according to their specific goals, values, and institutional setting.

In this sense, practitioners in Indonesia have been directly involved in the evolution of both concept and practice. Nonformal education practitioners have brought with them a range of techniques for group analysis, discussion, and problem solving. Participatory trainers have added methods for value clarification and communication. As these persons are involved in articulating the approach model and the concept, they are also assisted by general process model provided by Action Research which serves as a meeting point and common, integrative framework.

Hence Action Research in Indonesia is not limited to grassroots movements nor to internal institutional change. Indeed, one of the most valuable functions it serves is as a meeting ground for people coming from a variety of settings committed to social change. This allows for

many types of vertical and horizontal linkages which will, we hope, generate a broader impact for programs undertaken while simultaneously increasing the pool of resources that can be drawn upon for specific programs.

### Summary

Action Research has been practiced by a range of practitioners for over forty years. The 'branching' of Action Research discoveries and methodologies has spread well beyond the original enclave of social psychology to include educators, organization development specialists, and community activists.

Action Research stands solidly opposed to many of the key features of the dominant research paradigm, and as such has found but fleeting favor within academic and government groups despite continued calls for its utilization. Despite promising beginnings, Action Research remains an orphan in its own home within the social sciences. While the results of Action Research and the basic cycle of the model have found acceptance with community workers, organizers, and educators, it has continued to be labeled 'unscientific' by both academics and development technocrats obsessed with quantitative methodologies from empirical or logical positivist traditions. The separation of research activities from action programs has if anything become more firmly entrenched and institutionalized, "as in field theory, the 'passivity' of the status quo is fictional, great forces keep it in place". (Oquist, 1977, p. 14)

'New Paradigm' research alternatives emerging during the 1970's have created a new cloud of rhetoric and terminology. Essentially, the Action Research paradigm is broad enough to include most of the new

issues, indeed much of the 'new paradigm' paraphenalia seems to be a re-hash of longstanding issues within Action Research.

For social action programs, Action Research is an adequate model in terms of process, values, epistemology, inclusivity, and adaptability, allowing for the interface of social activists, communities, and social scientists. When fleshed-out with the many analytical techniques, data gathering methods, and group educational techniques spawned by the Action Research tradition it becomes a powerful paradigm.

The remainder of this study will deal with the issues of application: as stated by Rowan, "the problem now is to get on with it". Debating theoretical points and making ever finer semantic distinctions pales in comparison with the problem of application.

The major problem has been to effect lasting changes in the villages. The emphasis must be on institutionalizing the changes and giving them some organizational form. (Swantz, 1981, p.291).



## CHAPTER IV

### THE CONTEXT OF THE STUDY

Action Research does not pretend to operate at any given *STP* (standard temperature and pressure). Rather it integrates with and reflects the specific contexts within which it is applied and the particular practitioners making use of the approach. In this sense the approach "...will take on different political complexions in response to different national, regional, and local contexts" (Kemal, p.80).

For this reason an overview of the socio-political context of present day Indonesia must be given along with a brief description of Indonesian NGO's, the main practitioners of Action Research in Indonesia.

#### The Current Indonesian Developmental Context

The government of Indonesia is currently preparing for the launch of *REPELITA V*, the fifth-five year development plan of the 'New Order' government of President Suharto. The theme of the plan is *Menuju Tingkat Landas* (moving toward 'Take-Off'), a theme indicative of the government's belief that Indonesia is on the threshold of joining the region's NIC's (Newly Industrialized countries) including the 'little tigers' of Singapore, Hong Kong, Taiwan, and Korea. The front pages of national and regional dailies are full of references to efforts to de-regulate production mechanisms and promote non-oil exports with a higher 'value-added' content than traditional raw resource exports of oil, gas, lumber, rattan, coffee, and copper.

On the positive side, Indonesia has been decreed self-sufficient in rice production, in contrast to just ten years ago when the country was the world's largest importer of rice (see Case Study I). In other areas concerning national development prestige, fully 90% of the primary school age population is now enrolled in some form of elementary education program via the *Wajib Belajar* (Compulsory Universal Basic Education) campaign (Mudjiman and Dilts, 1985). Other showcase achievements include the development of a high tech aerospace industry producing commuter airplanes and helicopters, a nationwide television and communications grid linked by two satellites and spanning nearly all of Indonesia's 3000 inhabited islands, the development of the largest liquified natural gas installation in the region (1), and the emergence of Indonesia's plywood producers as major players in the industry.

There is a dark side to this picture, however, if the situation is viewed from the perspective of the rural poor, the ones who have 'paid the price' for the current mode of development. Some go so far as to state that the 'results' as listed above are illusory at best (W.Karcher, 1987,p.2). Studies indicate that more than two thirds of the rural population live below the official poverty line, that over half of the rural population is unemployed, and that 40% own no land (M.Oepen, 1988 p.1). Others point to the increasing disparity between the 'haves' and the 'have-nots' as indicated by the fact that a small group of 10-20% of farm households dominate some 70-80% of farm land (F.Heusken, 1987, p.30). The landed elites, due to their economic power, are also the ones to benefit from other programs aimed at non-farm production, since they

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(1) Mobil Oil Indonesia is responsible for 34% of Mobil's profits *worldwide* via the operation of the PT Arun facility in Aceh, northern Sumatera according to sources at the Directorate General of Oil and Gas.

are the ones with access to, and leverage upon, new credit programs, markets, and extension services.

The island of Java, 6% of the Indonesian land area containing at present some 100 million inhabitants, is a special case of densely-packed poverty. By the end of the century it is projected that Java, with 120 million inhabitants, will reach an overall population density of 1000/km<sup>2</sup>, a density similar to North American cities today (Sasono, 1988,p.9). With this context, the peasant population is not isolated from shocks to the urban economy, and in many ways can be said to take the brunt of all downturns. More than two-thirds of the urban labor force is made-up of the 'reserve army' of the informal sector, for the most part displaced rural people who cannot be absorbed into the relatively small capital intensive industrial sector (S. Hasibuan, 1986, p.57). Despite its lack of natural resources, national wealth is increasingly accumulating in Java. As late as 1976 per capita consumption was higher in the resource rich outer islands, whereas today per capita consumption is 25% higher on Java (Vatikiotis, 1988, p.64). 90% of all capital is controlled within the boundaries of greater Jakarta (Syahrir, 1988,p.35)

Recent discussion in Jakarta has focused on the latest (April 1988) World Bank Annual Report, a 'classified' document entitled this year *Adjustment, Growth, and Sustainable Development*, that is ritually leaked to the press and the government. At the tail-end of the oil-boom 1970's the much discussed debt-service ratio ratio 'danger level' was set at 20%; the rate for the current year is variously estimated to be between 33 to 41% with total external debt expected to reach US\$ 50 billion in 1988-89 (S. Djojohadikusumo, 1988,p.60). The Inter-Governmental Group on Indonesia (IGGI) approved an assistance package for Indonesia for

1988-89 of US\$ 4.01 billion, up nearly 25% from the previous year (*Kompas*, June 17, 1988). Unemployment, which can seldom be effectively estimated in developing countries, is best characterized by the 'dependency ratio'; i.e. the number persons 'carried' by each fully productive citizen, which is now put at 1 to 4 (S.Djojohadikusumo, 1988 p.25). Even the abundant natural resource base is dwindling with oil prices and production stagnant and forest resources being destroyed at the rate of 900,000 hectares per year. In sum, despite a much higher than expected 3.2% GDP growth rate over the last year (as compared to 1.9% in 1985-86), the danger signals of economic 'slow-down' abound.

#### The Sway of Economics

Indonesia is often characterized as the 'the land of the economists' (A.Mahasin, 1988,p.3) due to the prominence of a group of US trained economists who have dominated most key ministerial posts since the inception of the New Order Government in the late 1960's. This group came to power after the economic chaos of the late Sukarno era, and rode the windfall of the 1970's oil price boom into positions of unusual influence. Budgets were available for a wide range of centrally planned efforts in industrial, agricultural, and infrastructural development. The national fascination with quantitative measures of development remains strong.

Despite what appears to most to be a very precarious economic situation, these persons still stick to optimistic forecasts of every increasing non-oil exports, increased tax receipts, and improved production through de-regulation. On the other hand, even farmers understand the current situation in other terms such as *Ijon*, systems wherein crops are sold green in the field at low prices to cover current

debts, with the result that food must later be bought back at much higher prices. As in *Ijon*, the cycle is hard to break and those within the system have little choice but to continue. Practically, with the World Bank and other donors supplying even counterpart rupiah funds for projects, the government has little choice but to continue its current policies while salvaging some pride via the sobriquet of being 'a model debtor nation'.

### Development Politics and Policies in Indonesia

Economic forces are in fact political forces. The science of economics pre-supposes a given political order, and cannot be profitably studied in isolation.

E.H. Carr in Sasono, 1988, p.8

During the late Colonial Period the Dutch economist Boeke propounded a dual economy theory wherein priority was to be given to the 'progressive' sectors of the 'native' community who could most make the best use of inputs and programs (Boeke, 1927). To many observers, Boeke's ideas have come to fruition under the New Order government, entrenching the social, economic and political discrepancies between landowner and landless, rural and urban, civil service and informal sectors. 'Green Revolution' quantitative results cannot hide the increase in landlessness and unemployment, as well as the further disruption of traditional social equity systems. Concerned Indonesian scholars have been issuing increasingly dire warnings concerning 'polarization' at the village level wherein elites are mostly concerned with "collecting taxes and ordering the peasants around to join the various development programs introduced by the central government" (Soetrisno, 1981, p.9)

The philosophy of the New Order Government, and the centrally planned development run by the economists has been characterized as "Economics Yes, Politics No" (Sasono, 1988,p.9). The two overriding imperatives of the New Order have been *the political control of rural areas*, and the *assurance of cheap food supply for the cities* (Huseken, 1988,p.27).

These 'anti-rural' policies have been accompanied by both political and economic ploys in their implementation. Politically, the *floating mass* system was put in place wherein no organized political activity was allowed at the village level. Until the mid-1970's groups of more than five persons could not meet in the village without police permission. Existing mass organizations were either banned or coopted into government organized bodies. To the present day all labor unions, farmers' groups, and cooperatives come under the jurisdiction of massive quasi-government organizations. At higher levels all remaining political groups were re-organized by the government into three 'new' parties under strict regulation by the government.

During the 1970's, when government coffers were flush with oil funds these policies of de-politicization and centrally planned development programming were pressed into all sectors. Now the tables are beginning to turn. Of late many key government officials are voicing the need for the development of grass-roots institutions and a change in the role of government (Soepardjo Rustam, 1988). National development guidelines now include statements concerning bottom-up planning, community participation, and villagers as the 'subjects, not the objects' of development (Draft State Development Guidelines for Repelita V, 1988).

However, such fundamental changes in attitude and practice cannot be decreed into existence; especially in light of well entrenched government and private interests. Policy statements are still cloaked in contradictions: 'Controlled De-regulation', 'Dynamic Stability', etc. Subsequent to the 1988 elections crackdowns on suspected communists, religious radicals, and even elements of the press have increased.

### The Role of Indonesian Non-Governmental Organizations

Philipino

Activist:

"Indonesia must learn from us,  
you need a People's Power  
Revolution!"

Indonesian  
NGO activist

'On the contrary, you must  
study from us: we had our  
Peoples Power Revolution 20  
years ago and look what happened!'

Indonesian non-governmental development organizations (NGO's) are a relatively recent phenomena, and they must be understood within the context described in the preceding section; re: the political economy of development in Indonesia.(2)

The late 1960's alliance pressing for the abolition of the Indonesian Communist Party (3), the overthrow of Sukarno, and the establishment of the New Order consisted of the unholy alliance of students, muslims, and the armed forces. By 1970 this alliance consisted of only the Armed Forces with its designated *Dwi-Fungsi* (multi-function) role bringing defacto control of politics, government, and even business. Student movements and muslims found themselves marginalized.

The leadership of most key (i.e. vocal, national, influential in policy circles) NGO's today can be traced directly to late sixties student movements, especially KAMI (the most vocal anti-Sukarno group drawn mostly from the University of Indonesia and the Bandung Institute of

Technology) and HMI (the National Muslim Students Union). The leadership of newer NGO's appearing in the 1970's can also be traced directly to student uprisings (Malari in 1974, Pemilu 1978, Solo/Ujung Pandang 1980).

The recent upsurge in muslim 'development' activity centering on Pesantren (rural Islamic boarding schools) represents an amalgam of urban Islamic intellectuals and rural-based political institutions, most notably Nadahtul Ulama (4). Some will admit frankly that the initiation of rural development programs within rural Islamic institutions was an early 1970's move to establish mass followings in rural areas (5). Hence 'outside views' often popular, including those of Ivan Illich (6) and V.S. Naipaul (7), miss the point.

(2) This brief analysis is an insiders view based on 13 years of experience with a range of Indonesian NGO's including board membership on a few. Most current literature falls short of setting the true context since for the most part it is couched solely in developmental jargon, i.e. discussion meant for the ears of government and donor agencies and hence not reflective of internal discussion of the issues. More conventional discussion can be found in Betts et al, 1987; Korten 1986; Gombleh 1987; Strand 1986; Dilts 1983; Sartono 1988; Bina Swadaya 1982; Williams 1978; World Bank/Ford Foundation 1984; Oepen 1988; Sasono 1988; Adicondro 1987; et al.

(3) The third largest in terms of membership in the world as of 1965 according to Mortimer, 1974.

(4) NU, or 'Arising Islamic Scholars' was a major political party under Sukarno, garnering over 30% of the national vote in the 1955 and 1957 national elections. This group has also been 'de-politicized': first by being melded with other Islamic groups into PPP (the United Development Party) in 1971, and in 1985 by being coerced into accepting *Panca Sila* as its sole ideology while divesting itself of 'practical political' activities.

(5) Reaffirmed via discussions with Ismid Hadad and Dorodjatun Kuntjorjakti, key KAMI/HMI leaders and the 'movers' behind many NGO efforts over the last 20 years.

(6) Illich in 1975 found the embodiment of his 'school without walls' in the form of Pesantren Pabelan, Central Java.

(7) His comment in Among the Believers that pesantren were institutes 'where the poor teach other poor how to be poor'.



Many other groups, institutions, and foundations are present, but it is hard to name a 'major' NGO without some political background. Bina Swadaya, the largest NGO in Indonesia in terms of program, budget, and staff, is a direct reincarnation of the *Yayasan Sosial Tani Membangun* (The Peasants' Socio-Economic Development Foundation) which in the mid-1960's had a membership of nearly 4 million and through 'mass action' had elected 11 members to national the parliament (Ismawan, 1981). This group has also been the victim of cooptation. In 1971, in line with the 'floating mass' policy, all farmers' organizations were subsumed under a quasi governmental organization (HKTI). Village collectives run by YSTM were also subject to scrutiny after the issuance of Presidential Instructions (*INPRES*) in 1978 making 'competition' with official government run cooperatives at the village level illegal.

#### Current NGO Strategies

Given the above background, it is not surprising that Indonesian NGO's find themselves caught in terms of role. On one hand they work directly with poor rural and urban communities to effect change, while on the other they place emphasis on having an impact upon government programs and policies. The balance is precarious and has led to splits within the NGO community as can be seen in the current nomenclature used to describe Indonesia NGO's, i.e. BINGO's (Big Indonesia NGO's), MINGO's (Medium-sized Indonesian NGO's) and LINGO's (Little NGO's). The Indonesian terms for large and small NGO's *LPSM* (Institutes for Developing Self-Reliance) and *LSM* (Self-Reliant Local Institutions) contain an inherent urban-rural split in both membership and program emphasis.

In general, relationships with the government are fluid and individual rather than institution based. Due to controls, NGO's must work with government bodies at all levels from national to village; on the other hand they must keep their own identity and avoid being swallowed as mere 'contractors' for government programs. During the last five years government, with much pressure from foreign donor agencies, has opened many opportunities for NGO's to participate in projects. To some, this is very positive and indeed lucrative for the organizations involved. To others this at best allows NGO's to become the "toilet cleaners" of government, cleaning up messes without any real say in design or conception (Rahardjo, 1988).

While in many ways collaboration with government has increased, and government policies have come to incorporate many of the approaches and values previously championed by NGO's (participation, bottom-up planning). suspicion of NGO's remains high. In 1986 a constitutional article was passed making all NGO's subject to government supervision and giving the government the right to disband NGO's deemed 'out of line'. In sum, relationships with the government are essential, but they remain delicate and volatile.

### Networks and Coalitions

Since 1980 there has been a marked upsurge in networking activity among Indonesian NGO's. Outright formal consortia have been avoided since this would make the coalition responsible for any sins of its members in the eyes of the government. Some of the key networks that have been formed include:

1. Bina Desa (1975): a 'secretariat' providing information and support services to a wide range of NGO's (their catalogue lists over 400 groups)

2. WALHI (1980): the Indonesian Environmental Forum, linking a wide range of groups and organizations involved in environmental and general NGO activism.
3. P3M (1983): The Coalition for Pesantren and Community Development, a network linking 6 key regional pesantren which in turn support programs at local pesantren
4. KRAPP (1985): the Association of Anti-Pesticide Voluntary Agencies, a loose coalition of environmental activists involved in agriculture
5. SKEHPI (1985): a forestry and environmental conservation network
6. JARI (1984): The Indonesian Action Research Network
7. PKBI (1971): the Association of Indonesian Family Planning Organizations

Additionally there are a number of more loosely associated groups formed around particular issues such as INFOMAD (concerned with developing NGO management) or INGGI (the Indonesian Non-Governmental Group on Indonesia), study groups, and so-called 'working groups' composed of leadership from key NGO's. The latter have come under much attack since most 'working groups' are formed to work with government programs or to divide-up foreign donor assistance. In most cases these networks do not represent mass movements, but rather form 'lobbying groups' geared to strengthening the NGO voice concerning policy issues. Again, some networks, and especially the 'working groups' are held in suspicion since they become speaking platforms for entrenched NGO leadership. There is constant talk at meetings of the true meaning of 'networking', as central secretariats often dominate their 'members'.

#### JARI: The Indonesian Action Research Network

For the purposes of this study, the emergence and development of JARI is of key import. The appearance of a wide range of NGO's during

the 1980's has created its own set of problems. All of these organizations share a common commitment to the improvement of grassroots participation and the strengthening of local institutions; however converting idealism and values into concrete change and effective programs has proven to be a great challenge. This has been especially true of newer groups which came into being during the 'de-politicized' era after 1971.

Many NGO's, while espousing bottom-up, participatory, empowering approaches to development and severely criticizing top-down paternalism; have found themselves trapped by an inability to translate critiques and rhetoric into action. Many NGO's perpetrate very conventional programs under the rubric of 'participation' due either to naivete or to a lack of viable alternatives. Because of this, a number of NGO's have emphasized the importance of efforts to define, test, and improve alternative development strategies and methods more in line with their values and ideals.

Action Research had been heard of before JARI. In 1982 LP3ES (The Institute for Social and Economic Research, Information, and Education) along with several other NGO's attempted pilot activities in Action Research and Alternative Education in a number of villages in Java (See Case II). Activist university based researchers at the Center for Environmentally Sound Development of the Bandung Institute of Technology were experimenting with participatory research approaches for environmental sanitation programs. Other institutes involved in nonformal education such as the Center for the Development of Learning Activities in West Java, *Yayasan Indonesia Sejahtera* in Solo, and even some pesantren were working with methodologies informed by Action

Research. Additionally, a wide range of other groups and institutes were working on similar approaches wherein community based participatory programs combined concrete action with knowledge creation, education, or awareness building activities. (Dilts, et al, 1987)

### The Founding of JARI

In February 1984 the Indonesian Environmental Forum (WALHI) in collaboration with a number of large Indonesian NGO's and with the support and funding of IDRC held a Workshop on Action Research at the Training Center of Bina Swadaya in Cimanggis, Bogor. Participants and resource persons at this workshop included 40 persons from a wide range of Indonesian NGO's plus various activist members of the social science community. The three day workshop was intended as a forum for exchange of experience, viewpoints, information, and methodologies applicable in further defining the theory and practice of Action Research.

Some of the important findings of the workshop were that:  
(WALHI, 1984)

- o Action Research terminology was applied to a greatly varying body of experience and practice
- o Little productive dialogue had previously taken place between practitioners
- o Action Research appeared to be a logical common meeting ground between a variety of seemingly different persons and institutions committed to social change
- o All participants enunciated the need for further efforts in developing, testing, analyzing, and disseminating Action Research programmatic information and field methodology.

The key outcome of this workshop was an outline for the establishment of an *Indonesian Action Research Network* that would serve to link practitioners from a variety of fields and institutional

bases while enriching ongoing practice in the fields of social research and social action.

*JARI* was initiated in order to advance the analysis and development of Action Research methodologies as an alternative approach to social research, social action, and social change. *JARI* was designed to admit and build upon a diverse set of definitions and approaches concerning Action Research, avoiding exclusivity or the emergence of a single, binding ideology or methodology (WALHI, 1984).

Specifically, *JARI* was established to :

1. Conduct theoretical and empirical studies of Action Research via analysis of literature and through actual field programs
2. Facilitate and assist Action Research programs being undertaken by various Indonesian NGO's.
3. Document and disseminate information concerning Action Research programs
4. Provide Technical Assistance to NGO's and other organizations attempting to develop and apply the concepts and methodologies of Action Research.

In order to achieve some of the above stated goals, *JARI* prepared itself to undertake the following set of secretariat and fieldlevel activities:

1. Provide funding for four field trials of Action Research to be undertaken by four NGO's.
2. Monitor the development of field activities in order to document processes at the community level, methodologies employed, and impacts at the community level resulting from Action Research programs.
3. Assist in the provision of support facilities and technical assistance for field programs
4. Disseminate information concerning Action Research concepts, methodologies, and experience through the publication of a bulletin on Action Research, and through workshops and seminars.

5. Organize training and consultation in Action Research for interested Indonesian NGO's involved in community-based research and development activities.

### The Development of JARI

As *JARI* progressed, a number of interesting things occurred. In general, and in large part due to lobbying and dissemination efforts undertaken by *JARI* members, Action Research began to spread through the NGO community. An increasingly large number of organizations enunciated Action Research as the preferred approach methodology for community programs and projects.

As *JARI* came into its own as an active network, and not just an idea in the heads of a number of NGO activists, organizations outside of the NGO community began to take an active interest in Action Research. The *JARI* bulletin *ALTERNATIF* generated interest and comment not just from NGO's but also from government agencies and university based researchers. *JARI* received many more requests for information, publications, and direct technical assistance than it was able to respond to.

### Emerging Issues and Problems

While the above developments indicate the beginning of *JARI*'s concrete existence, and even success; they also indicate some of the problems and challenges still facing *JARI*. As more and more NGO's and activist social scientists heard of *JARI*, the demands placed upon the network became more intense. *JARI* was faced with the need to not only meet the original demands placed upon it, but to face an increasing (and increasingly diverse) set of demands.

As Action Research terminology spread, becoming almost a *pro forma* part of NGO program proposals, the dissemination of jargon was not accompanied by a similar development of solid mastery of necessary concepts, methodologies, or even documentation.

Most international debate generated in seminars by mostly academic participants, as reflected in early chapters herein, centers on issues of epistemology and ideology; i.e the validity of knowledge produced and the purposes of knowledge creation). *At the field level the questions of practitioners are very different.* During the last five years the key issues that emerge at the field level include the following: (JARI, 1987)

1. What is the difference between Action Research and conventional 'CD' (community development) approaches? Is Action Research a total approach, or just an approach to CD?
2. What are the similarities and differences between Action Research and other 'participatory' approaches such as nonformal education, experiential training, etc.?
3. What is the role of outside NGO fieldworkers and community organizers in Action Research?
4. What program cycles/strategies are needed for Action Research? What are the specific techniques that can be used at each stage of the process?
5. What are the indicators of impact? Concrete community projects or more difficult 'process indicators'?
6. What type of documentation should be produced? What to document? in what form? for/by whom?

From these questions at fieldlevel came an interesting analysis: the founders of JARI comprised a group of experienced NGO practitioners experienced with nonformal education methods, various participatory approaches, and development theory in general. Their critique of current practice had led them to Action Research as a



vehicle for further refinement of methods and approaches. These persons also saw Action Research as a verdant potential meeting ground between themselves and committed social science researchers.

On the other hand, many of the persons coming into contact with Action Research as espoused by *JARI* were new to NGO's in particular and to various approaches and methodologies in general. While quick to pick-up on the rhetoric of Action Research as the current mode of discourse in NGO circles; they were much at a loss when it came to implementation. To these persons, discussions of epistemology, etc. formed much too ethereal a critique of existing practice and experience (of which they had little). Some expressed confusion when suddenly presented with a critique of something with which they were only beginning to be comfortable.

Based on this, *JARI* abandoned its initial emphasis on short workshops (3-5 days) in favor of more indepth training programs with heavy emphasis on complementing conceptual discussions with strong components of fieldwork and practice within actual village settings. Case III of this study illustrates *JARI* response to these definitional and methodological issues.

### Summary

Present day Indonesia poses a unique set of challenges to the national NGO's developing and promoting Action Research. Current NGO's were born out of political struggle and now find an uneasy peace within the New Order Government. During the 1980's a number of NGO's have begun experimenting with Action Research, some due to the fashionability of the term itself and others due to awareness of the shortcomings of previous approaches to development.

The Indonesian Action Research Network has attempted to organize and systematize the dissemination of Action Research through trial programs, workshops, training, and publications. How far this effort has succeeded and what major constraints have been encountered in the field is the subject of Part II of this study.

## CHAPTER V

### INTRODUCTION AND METHODOLOGY

Over the last five years a variety of Action Research Programs have been initiated in Indonesia including everything from People's Theater programs within leper colonies to urban participatory video with squatter communities to trials of biological/pesticide-free farming methods. The cases selected for this study are those exemplifying a range of key issues and common Action Research applications.

Each case represents a variant set of circumstances, approaches, and targets. Each case will address or illuminate certain critical issues in Action Research development and application.

The field cases (I and II) were chosen because they exemplify two divergent types of Action Research practice found in Indonesia. Case I details an Action Research intervention undertaken within a complex institutional setting geared to policy change, while Case II describes a community-based Action Research program. Case III, while ostensibly dealing with training and dissemination of Action Research, is important in that it contains concerted efforts to reflect upon experience and further define models, principles, and methods.

#### The Selected Cases

Case I: *Policy Oriented Action Research: Increasing Beneficiary Participation in Irrigation*

The case illustrates a common, even traditional, application of Action Research, i.e. the effort to improve and refine policies while

simultaneously improving actual practice. In this case Action Research replaces conventional research and evaluation methods and directly involves the beneficiaries of development in the design of policy initiatives.

This case involves four sub-cases each dealing with a specific small scale irrigation system and with specific irrigation development issues.

In terms of Action Research, the key questions addressed through this case include:

1. How can Action Research be utilized to effectively replace conventional research components within complex institutional settings? What are the benefits of using Action Research in these contexts?
2. What is the relationship of non-governmental development organizations (NGO's) to government programs and agencies, and how are these NGO's utilizing Action Research?
3. How do nonformal, participatory methods fit within the Action Research approach?
4. What type of documentation is generated by Action Research at various operational levels, for whom and by whom?

Case II: *Action Research at the Grassroots Level: The 'Researchers from the Village' Program at pesantren Maslakul Huda*

This case illustrates the evolution of a community based Action Research program over a period of years. This case gives some meaning to the common concepts of empowerment, participation, bottom-up planning, horizontal dissemination, and sustainability. As such this case represents what is commonly envisioned by practitioners and theorists concerning Action Research, and fits most descriptions of Participatory Research, albeit without the ideological baggage.

Some questions addressed by the case include:

1. What is the relation between Action REsearch and community development?
2. How do nonformal, participatory methods fit within the Action Research approach?
3. How does Action Research address the issues of participation, sustainability, and local institution building?
4. What type of documentation is generated by Action Research, by whom and for whom?
5. What factors promote or constrain the application of Action Research at the field level?

Case III: *Field Training for Action Research: Defining, Refining, and Disseminating Action Research*

This case documents the efforts of JARI in their work with one particular NGO to consolidate experience into a program for training Action Research fieldworkers. Here we turn full circle: from conceptualization, to practice, and back to conceptualization in an attempt to define a particular strain of Action Research within a particular setting.

Some specific questions highlighted by the case include:

1. What is the relation between Action Research and community development?
2. How have specific organizations defined and operationalized Action Research?
3. What issues must be considered when designing and implementing training programs in Action Research?
4. What factors promote or constrain the application of Action Research at the field level?

### Methodology

This study is the product of extensive fieldwork and direct interaction with Action Research programs and practitioners in Indonesia. This is in line with a key principle of Action Research; namely that complex human systems must be entered and acted upon in order to be understood. This author had worked with a number of Indonesian NGO's in the late 1970's and early 1980's in promoting nonformal education and participatory training within community development programs. During this time a number of shared concerns emerged which seemed amenable (Dilts, 1983 and 1988) to Action Research interventions.

For this reason the methodology for these cases can be described as *embedded*. With the exception of Case I, the researcher was a full participant in all stages of program conceptualization, implementation, and evaluation.

In Case I, this researcher mobilized a team of JARI members to design, perform, and follow-up a participatory research intervention within the context of a larger, ongoing Policy Oriented Action Research program. This author received a direct grant from the Asian Development Bank for the purpose of this study.

In Case II, the author worked at the community level with LP3ES and the local community institution in the formulation of the program, the development of the funding proposal, the design of the training program, and in the facilitation periodic workshops on special issues such as evaluation and documentation.

In Case III, the researcher is a board member of LPTP (*Lembaga Pengembangan Teknologi Pedesaan*), a Solo, Central Java based NGO and

a founding member of JARI. The author has worked with LPTP for over 5 years in providing training in Action Research and Nonformal Education and served as consultant and facilitator to this five month long training in Action Research Fieldworker training sponsored by LPTP and JARI.

Convergent, participatory methodologies were utilized throughout this study. In other words, methods and techniques were jointly developed and implemented to serve joint purposes. While this researcher had a high level of personal investment in the process, this in no way meant ownership of the process. All interventions and Action Research activities were conducted in the Indonesian National Language with some Javanese utilized in field programs in the Solo area (Case III).

Specific activities undertaken which have provided the empirical basis for this study include:

1. Workshops and Issues Forums: short three to five day Action Research issues workshops and discussion forums were held at the national and local levels. Content of these forums varied from general discussion of Action Research to specific issues such as Documentation for Action Research and Action Research vis a vis community development.
2. Documentation Activities: were set-up under *JARI* to provide a forum for issue discussion and documentation of field level activities. This author has served for three years as editorial board member and content consultant/writer for the *JARI* publication *Alternatif*. Feeder programs for *Alternatif* included efforts in *community journalism* and workshops on *program documentation* conducted at the field level.
3. Participatory Evaluation: Action Research methods were introduced into *JARI's* routine mechanisms. Participatory evaluation programs involved staff from a variety of participating groups in mobile workshops. These 'group consultations' exposed participants to a wide range of programs while providing experience in the application of new techniques and approaches.

Throughout this work a set of analytical frameworks has been utilized to assist in the examination of experience across settings and programs. The frameworks utilized include:

1. Research Profiling: A 'Conventional Research - Action Research Continuum'

An immediate issue is definition. Action Research, like nonformal education, must be broken down into discrete elements for meaningful analysis. Beginning from the 'known' of conventional research, specific programs are analyzed by component in order to obtain a profile of current practice. This provides the starting point for the process of refinement and change as new methods and perspectives are adapted to programs to bring them into line with the values and goals espoused by a particular agency. Adapted from the work of Dr. Michael Frith, this matrix was used at a series of national and local level workshops to assist in better defining current practice. Due to the explanatory strength of this instrument, even newcomers to Action Research are able to get a better grasp of what otherwise appear to the uninitiated as a miasma of jargon.

An example from KRAPP (the Volunteer Network Against Pesticide Abuse) is shown in figure V-1 on page 71. This profile was created during the course of a *JARI* evaluation workshop. KRAPP programs evolved from 'demonstration plots' totally controlled by outsiders to community-based experiments building on local knowledge. This profile shows clearly how certain conventional elements remain within this particular Action Research program. The goal of analysis is not purity, but clarity: one must define current practice clearly before attempts at change are made.



## 2. Model Building/Approach Analysis

Model building is an important part of Action Research. Beginning with the most basic 'Action-Reflection' cycle models of actual practice are developed. Once the basic stages are delineated, they are further articulated in terms of what is actually done at each juncture, plus what might be done in terms of methods and approaches. This provides a practical way of introducing changes in methods and practice that can further adjust the 'research profile'.

The basic model used by KRAPP is illustrated in figure V-2 on page 72. This model is in most simple form, without articulation of each stage. In the LPTP Training Case (Case III), this model building element was used extensively to look at actual approaches within six villages including the articulation of appropriate methods at each stage.

## 3. Participation Scale

Each case will be analyzed by using an adaptation of the participatory scale developed by the Inter-American Foundation for the analysis of approach models utilized by NGO's in Central and South America. This scale was found to be very illuminating within the Indonesian context wherein 'participation' has become shackled with a highly elaborate, and not always lucid, compendium of jargon. This scale breaks participation down into three forms or levels comprising:

Presence: beneficiaries participate in only some program activities, their principal role being as recipient of services while they are asked to supply in-kind contributions of material or labor. Organizations are temporary, led by outsiders or their appointed local elite and usually begin and end with beneficiary agreement to 'participate' and contribute.

Representation: beneficiaries have a mechanism for articulating their needs plus the leverage to make their voices heard. Beneficiaries participate in major decisions and influence policy, priorities, choice of technology, and allocation of resources. The usual organizational structure is some form of committee either based on existing groups or created expressly for the project.

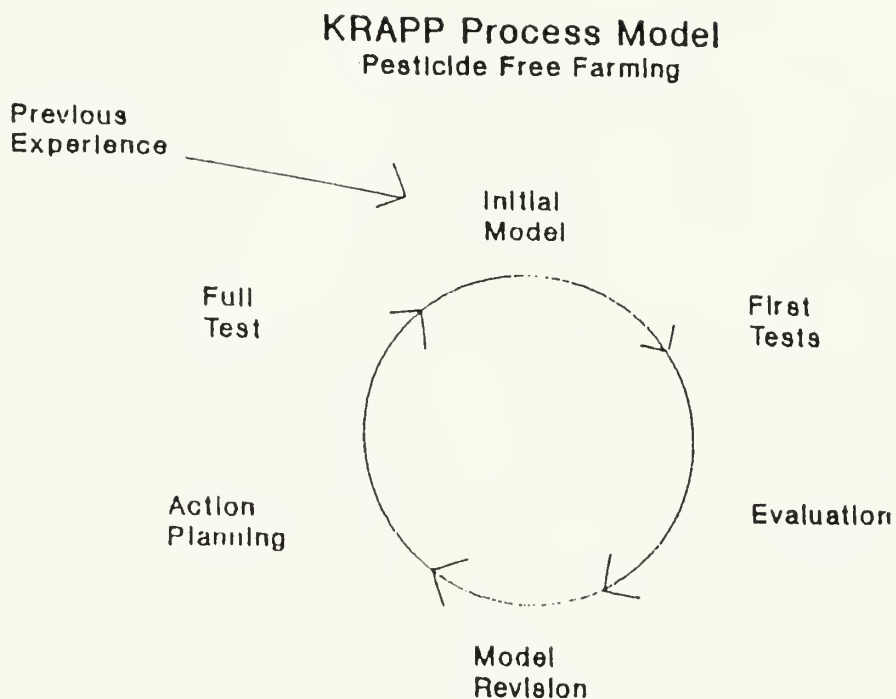
Control: beneficiaries exercise direct and effective control over projects and influence policy formation. Beneficiaries control planning and design, allocation of resources, sharing of profits and expenses. Beneficiaries make decisions due to ownership or control of decision making committees and can apply leverage through networks and linked groups. At this level dependency on key persons or outside resources is minimized.

These categories have resonance with the three domains delineated by Habermas of *instrumental action*, *communicative action*, and *emancipatory action*. Methods utilized in each sphere differ accordingly. In the realm of instrumental action conventional community development methods are appropriate for merely identifying and overcoming technical problems. Communicative action requires the development of self-knowledge and an understanding of the social world we both inhabit and constantly re-create. Emancipatory action entails looking holistically at social and cultural environs and taking group action to solve more basic structural problems.

These differentiations of participation are more relevant and illuminating than some recent definitions wherein participation is looked at as being dichotomous: either participation is geared toward *efficiency of project implementation*, or else its purpose is *empowerment*. (Bamberger, 1988; Shams, 1988). Nearly all efforts pointed toward 'efficiency' fall into the category of *presence* listed above, where communities at most contribute in-kind to outside initiated projects or are at least consulted concerning their priorities. This tends to be a funder's or government perspective, especially when tied to such current trends as *cost recovery*.

In this context discussion of *empowerment* is seen as fuzzy and tied to political agendas or value goals that do not fit nicely into project formats, nor does empowerment lend itself to 'scaling-up'. In this sense, much of the recent formal debate on participation has not been illuminative.

The *final chapter* will attempt to summarize experience from the case studies in order to answer some of the basic questions posed by this study while pointing to areas where further issue resolution is necessary.



Bangarl Workshop, Oct.'87

\*This diagram was developed by KRAPP Kelompok Relawan Anti-Penyyalagunaan Pestisida or Volunteers Against Pesticide Abuse; based on their experience using Action Research in rural communities to develop pesticide free farming techniques. In the KRAPP approach, emphasis is placed upon local knowledge and traditional pest control systems, hence community farmers are involved in the model development process

Figure 5.1 KRAPP PROCESS MODEL: Pesticide Free Farming

Table 5.1 A RESEARCH CONTINUUM: KRAPP ACTION RESEARCH PROGRAM PATTERN

<i>Nov. Paradigm/AR/EAR</i>								
<i>Conventional</i>								
Centralizing, Social control, Domestic Assistencialism	3	2	1	OBJECTIVES	1	2	3	Creating Indigenous Knowledge, Empowerment, Self-reliance, Social Change
Central Controlling/predicting External	3	2	1	INTERESTS SERVED	1	2	3	Local Self-determined Internal
Professional, Paid, Remote, Expert, Source of Knowledge and Method	3	2	1	RESEARCHER	1	2	3	lay, Voluntary, Community member, Facilitator
Passive Research Object, Object of observation, Human variable	3	2	1	COMMUNITY	1	2	3	Researcher, Actor, Active Subject
Abstract, Quantitative, Needs expert interpretation	3	2	1	METHOD	1	2	3	Praxis, Creative, Dialogical, Open to lay interpretation
Numerical, Abstract	3	2	1	DATA	1	2	3	Concrete, Verbal
Comparison to fixed reality, Quality of method	3	2	1	VALIDATION	1	2	3	Utility, Quality of Social change
Reports, Documents, Planning Inputs, Policy	3	2	1	PRODUCTS	1	2	3	Community Process, Praxis
Government, Management, External Planners	3	2	1	CONSUMERS	1	2	3	Producers are CONSUMERS
Banking, Selective, top-down, Edictal	3	2	1	DISSEMINATION	1	2	3	Dialogical, Horizontal, from inside out

## CHAPTER VI

### POLICY ORIENTED ACTION RESEARCH AN ACTION RESEARCH INTERVENTION CONCERNING IRRIGATION SECTOR POLICIES ON BENEFICIARY PARTICIPATION (1)

*Policy Oriented Action Research* is one of the most common and most complex applications of Action Research. This variant of Action Research is close to the vision held by Kurt Lewin wherein Action Research would combine the efforts of social scientists, communities, and activists in conducting research and action in order to define, act-upon, and improve social reality.

Efforts such as these are multi-level and multi-issue, involving the development and testing of both policy framework models as well as program operation models. This case is of special interest in that it *documents a timely Action Research intervention launched within a larger, long-term Action Research program.*

The specific goal of the intervention is to further refine models of community participation in irrigation system design, development and operation. This is an 'important issue that really matters' to local communities. The methods employed give a voice to the ultimate beneficiaries of the program as policy is simultaneously further defined, hence the activities described within this case focus at the community level and involve strong elements of participation plus methods allowing

1) The author wishes to thank Cedric Saldhana of the Asia Development Bank who provided guidance plus a direct grant for this research activity as well as the excellent field team of Elias Moning, Riza VT, and Soekirman who made this study possible. Results of this study were presented in Kuala Lumpur in July 1988 at an EDI-World Bank sponsored seminar on Community Participation in Development.

for 'research by the people'. The outputs, impacts, and implications of the study also address implementing agencies at the district and province level, national line agencies, and international funding bodies.

The overall model includes the classic Lewinian steps of *analysis, fact-finding, action*, and again *analysis*; bringing resolution of specifically addressed issues, yielding more consolidated models, but leaving the door fully open to follow-up Action Research cycles.

In terms of Action Research, the key issues addressed in this case concern:

1. The replacement of conventional research and evaluation approaches with Action Research in order to study complex institutional settings
2. Relationships between NGO's and government agencies and policies
3. The effective adaptation of nonformal, participatory methods within Action Research
4. The generation of useful documentation for various operational levels

The complexity of this effort is reflected in the *research profile* on the next page (Figure VI-1 on page 84). This study was designed to assist in the refinement and consolidation of policy issues while also suggesting concrete models and methods for actual implementation.

This combination of goals can be seen easily on the profile. The combined goals yield a double, inconsistent profile. It is this type of profile which is often criticized by more radical proponents of Participatory Research (Brown and Tandon, 1982) as being a holdover from days gone by where parties having differing degrees of resources and power at their disposal can actually work together in a mutually beneficial manner.

*The Action Research intervention* undertaken in the course of this study was highly participatory and dealt with a real issue in the villages: the design and operation of irrigation systems. Methods used were within the control of the community, the community produced documentation, and the results of the study were put to immediate use within the community to strengthen local organizations.

On the other hand within a broader context this study was used to solidify policy and push for progressive change. Although the goals and outputs of this policy effort are clearly progressive, and clearly the communities affected by policy have been given a voice; the charge can be made that this still falls within the realm of social reform and even 'social engineering'.

From the viewpoint of Action Research as formulated in Indonesia, this combination of goals is acceptable. NGO's are constantly searching for ways to influence national policy and inject more of their values (democracy, participation, local institution building) into development policy. In this sense, Action Research serves as the bridge between communities, community activists, and government.

#### Component Case Profiles and Methodology

In order to address the requisite policy and operational questions defined in the previous sections, this Action Research intervention chose to look at the following irrigation sites in order to provide a revealing comparison of current modes of practice:

- A. Tanjung Bataut: a HPSIS (High Performance Sederhana Irrigation Systems) irrigation pilot project in the Province of West Sumatera. This was one of three HPSIS systems testing beneficiary participation mechanisms undertaken in the province. CO's (community organizers) from LP3ES were fielded for 26 months from pre-design through construction and operation.



- B. Maligas Tengah: one of the 119 systems in the Simalungun irrigation sub-project. This system received inputs in the area of beneficiary participation from Bina Swadaya (a national NGO) and NIA (The National Irrigation Association of the Philippines). A socio-technological survey was undertaken in the Maligas Tengah system as well as in 5 other Simalungun systems. CO's were fielded by Bina Swadaya after system construction to assist WUA (Water Users' Associations) in institutional development for system operation and maintenance.
- C. Paluh Kemiri: a government irrigation system where the Public Works Department constructed the physical infrastructure and subsequently left beneficiaries to manage the project with no beneficiary participation improvement inputs.
- D. Lestari: a village self-help irrigation system with no assistance outside assistance.

Maligas Tengah and the Tanjung Bataut HPSIS systems were selected to provide a comparison of different pilot approaches to improved beneficiary participation. Lestari and Paluh Kemiri were random selections based on location and ease of access due to the short time frame available for study fieldwork. No pretense is made that Paluh Kemiri and Lestari are characteristic of all village or all government irrigation systems.

The *study team* did not include any irrigation specialists. However, two of the four primary team members hold degrees in agriculture. Drs. Sukirman is a lecturer in the Agriculture Faculty at the Universitas Sumatera Utara in Medan, and Elias Moning, MSC. holds a Master's degree in agriculture extension from Colorado State University. All team members are NGO activists with long experience in participatory community development, training, nonformal education, and action research. Riza VT. is the editor of ALTERNATIF, the newsletter of the Indonesian Action Research Network, and team leader Russ Dilts has

12 years of experience in Indonesia working with NGO's in nonformal education, participatory training, and action research.

### Methodologies Used in the Fieldwork

This study focuses upon *beneficiary participation*. As such, and due to the short time frame available for fieldwork (one month for all four studies), the team developed an Action Research methodology actively involving farmers and WUA (Water Users' Associations) membership in the description and analysis of their irrigation systems. While many state that Action Research methods involving high levels of participation are slower and more time consuming, the team feels the opposite: participatory methods can be engaging, practical, effective, and time efficient. Such methods also allow for multiple cross-checking and discussion of results with a variety of parties. In addition to participatory techniques applied at the village level, the team also conducted a desk study of literature concerning small scale irrigation development and conducted numerous interviews with village officials, irrigation officials, and key staff of implementing agencies. Nearly all interviews and discussions at the field level were recorded and transcribed to retain accuracy.

### Steps in Methodology

*Initial Analysis:* The first step was to define the policy and operational issues that had been generated over the last eight years as well as the current state of consensus. The evolution of the overall program is as follows:

1980: Action Research Programs were undertaken with Ministry of Agriculture in collaboration with the Ford Foundation and in conjunction with several regional university faculties of agriculture. While many of the efforts ended as conventional

'demplot' programs, data was obtained concerning the penetration of government programs into traditional/village systems.

- 1982: HPSIS: a pilot Action Research program to test models of participatory irrigation development (PID) was initiated by the Ministry of Agriculture. Community Organizers (CO's) from national NGO's were placed in trial programs in 8 provinces. This effort was funded by the Ford Foundation.
- 1983: HPSIS Dissemination: USAID funded an extension of HPSIS AR program including technical assistance from the national NGO LP3ES. CO's from the Ministry of Agriculture were placed in village systems for tertiary structure development. CO's under the coordination of the Ministry of Public Works were assigned to villages during the design stage. Several models emerged from the HPSIS trials involving community participation in System Design (the SD model), System Management (The SM model) and in both areas (the SDM model)
- 1983: Madiun Trial: CO's from LP3ES were placed by the Ministry of Public works to encourage farmer participation in design stages of irrigation system development.
- 1984: ADB funded PID begins: under the second irrigation sector loan pilot efforts to strengthen community participation were initiated in the Simalungun sub-project.
- 1985: NIA (the National Irrigation Association of the Philippines) worked with the Simalungun Irrigation Project to adapt 'Socio-Technological Profiles' to the Indonesian situation. Eventually called 'agro-institutional profiles', this methodology was tried-out within the Mailgas Tengah irrigation system.
- 1985-86: NIA in collaboration with the national NGO Bina Swadaya and the Ford Foundation spread profiling to additional sites and included the placement of CO's to facilitate system operation and management.
- 1985: Traditional Irrigation Studies: The Ford Foundation funded studies by Andalas University West Sumatra, Sriwijaya University in Palembang, and Udayana University in Denpasar on traditional irrigation systems. Evidence was found as to penetration, intervention, and management of government in systems down to 20 hectares.
- 1986: Comparative Workshop: held by Ministry of Public Works PBME unit, Bina Swadaya with funding from the Ford Foundation. Profiles were reviewed and a decision was taken to undertake profiles for all 119 sites in PIS and to eventually field CO's at all sites.
- 1986: Training Program/Comparative Study: a comparative study of participatory irrigation systems was undertaken through field trips in-country and to the Philippines. 14 persons visited sites

in West Sumatra, South Sumatra, and West Java while 10 participants visited NIA sites in the Philippines. A subsequent workshop focused on alternatives concerning:

1. Profiling methods and utilization
2. CO's placement and role
3. Role of Public Works
4. Role of Beneficiary organizations(P3A)

A recommendation emerging from the workshop was that all systems under 500 hectares be eventually turned over to community management

1988: Cipayang Policy Workshop: a workshop held was held to develop policy guidelines for the improvement of the role of function of Water User Associations in Irrigation. The workshop included high-level personnel from the Ministry of Public Works, BAPPENAS, and the Ministry of Home Affairs working to examine critical policy areas concerning WUA including areal jurisdiction, legal standing, and turn-over policies and procedures.

1988: Turn-over Policy: the ADB commits adaptation of 'turn-over' policy for systems in West Sumatra, North Sumatra, and West Java under the 3rd Irrigation Sector Loan.

As an additional part of this first step secondary sources were reviewed and key persons interviewed to obtain a comprehensive overview of developments within the irrigation sector (See Appendix I: *Case Setting within the Indonesian Irrigation Sector* for a complete description of the issues).

After this first step, the team proceeded to the application of Action Research at the community level.

The *Action Research model applied at the village level* comprised a series of participatory activities involving WUA membership and the community at large. The entire process in each village, from initial introductions to the completion of photo-novellas took approximately one week for each location. The process can be broken down into the following steps:

1. Initial Organization
2. Participatory System Mapping

### 3. Photonovella Creation

### 4. General Review and Planning Meetings

These steps will be outlined in the following paragraphs.

1. Initial Approach: This is a crucial, and often difficult, first step in any Action Research process, since outsider access to the 'real' community is often blocked or coopted by village elites. We were lucky in this case because government officials declined the invitation to accompany us to the field, hence giving us the chance to determine initial contacts.

Our team went directly to the WUA's, with stops for informal conversation at coffee stalls interspersed with all activities! Without much trouble, group meetings were scheduled. At these meetings it is of utmost importance to explain clearly and honestly what your purpose is and who you are, and then allow ample time for informal discussion after meetings so that community members can 'check you out'. Since we were not from the government, and brought no fixed 'extension' agenda, the formal interrogation by the groups usually lasted no more than a few hours (not including informal talks). These meetings also opened the doors for extensive informal interviews with group membership and the community at large with a minimum of suspicion. If you live in the village for a week, you will talk for many hours with many people.

2. System Mapping: Farmers know their water system, and can usually explain it with a high degree of technical accuracy. The trick is to do this in a participatory, open manner. Participatory mapping serves this purpose. Group members are broken into groups and given paper to try to sketch out the basics of their system. These drawings

are compared and a composite drawing is derived and further detailed. This takes several hours, and by then people are restless. A 'walk-through' was scheduled for the next day wherein members of the group led us through almost the entire irrigation system over the period of a day. The 'walk-through' provides time for discussion of a variety of issues as well as bring additional detail to the map. A subsequent meeting is held to review 'walk-through' results. This forum provides a good venue for issues discussion as a joint, consensual picture of the irrigation system's history and current status becomes clear.

3. Photonovella creation: The mapping exercise set the stage for photonovella creation. By this time, besides physical description, a number of other issues had arisen. Through 'brainstorming' a list of important problems and issues were derived to form the basis for the photonovella. The task set for the photonovella was to present the current state of the community's irrigation system. Possible photo locations were listed beside each identified issues, and several members of the group were selected as photographers. In this process simple, autofocus-autoexposure cameras were used so that anyone who wanted could learn to take pictures in less than fifteen minutes.

A camera rotation was set-up and the teams headed-out to begin shooting. The actual shooting required on average a half-day, depending on distance from one site to another. During this time the outside researcher's role was 'meta-photography': i.e. taking slides of the process. In the late afternoon the film was taken to the nearest town and developed in a matter of hours.

The assembly of the photonovella and the generation of text was another key activity. Photos were sorted into a story line and the

group worked to develop descriptive text. Finishing this type of photonovella required nothing more than typing plus cut and paste. Photocopies of the photonovella were produced for use at a meeting scheduled for the following day.

4. Group Review and Planning Meeting: The main agenda of this meeting was the review of the photonovella. By this time the activity had attracted broad interest in the community, and the meeting was attended by a group far larger than the actual WUA membership. As the photonovella was reviewed, numerous other issues were brought up for discussion that had not been included in the photonovella. A brainstorming technique called *meta-planning* was used to sort these issues. Issues were written on small pieces of paper as they come up and then posted on a large board. These issues were then sorted under headings such as "problems with irrigation department", "problems with contractor", "internal WUA problems". After organization, the group brainstormed possible steps that to be taken for problem resolution. In this way the end product of the research project was not just for outsiders: the village group had been strengthened and had taken the first step toward problem solving. Additionally, the groups possessed solid documentary evidence of the process and the situation confronted.

This multi-level process produced strongly documented case studies having a high correlation with reality. The village level processes combined with initial analysis and interviews with a wide range of officials produced a useful portrait of the current situation.

The resultant case studies focusing on the operational and policy issues *beneficiary participation in irrigation* will be presented in the following sections. Figure VI-2 on page 85 presents a summary of the

technical issues dealt with across the four cases. After the presentation of the four cases conclusions will be drawn concerning both technical/policy issues and *Action Research* issues.



Table 6.1 A RESEARCH CONTINUUM: POLICY ORIENTED ACTION RESEARCH

<i>Conventional</i>	3	2	1	1	1	2	2	3	<i>New Paradigm/AR/PAR</i>
Centralizing, Social control, Domestication Assistencialism		●			OBJECTIVES	1	2	3	Creating Indigenous Knowledge, Empowerment, Self-reliance, Social Change
Central Controlling/predicting External	3	2	1	1	INTERESTS SERVED	1	2	3	Local Self-determined Internal
Professional, Paid, Remote, Expert, Source of Knowledge and Method	3	●	2	1	RESEARCHER	1	2	3	Lay, Voluntary, Community member, Facilitator
Passive Research Object, Object of observation, Human variable	3	2	1	1	COMMUNITY	1	2	3	Researcher, Actor, Active Subject
Abstract, Quantitative, Needs expert interpretation	3	2	1	1	METHOD	1	2	3	Praxis, Creative, Dialogical, Open to lay interpretation
Numerical, Abstract	3	2	1	1	DATA	1	2	3	Concrete, Verbal
Comparison to fixed reality, Quality of method	3	2	1	1	VALIDATION	1	2	3	Utility, Quality of Social change
Reports, Documents, Planning Inputs, Policy	3	●	2	1	PRODUCTS	1	2	3	Community Process, Praxis
Government, Management, External Planners	3	●	2	1	CONSUMERS	1	2	3	Producers are consumers
Banking, Selective, top-down, Edictal	3	2	1	1	DISSEMINATION	1	2	3	Dialogical, Horizontal, from inside out

Table 6.2 COMPARATIVE CASE FRAMEWORK I

	<i>HPSIS Tanjung Bataut</i>	<i>Naligas Tompan</i>	<i>Paluh Kemiri</i>	<i>Lestari</i>
Project Genesis	8 province USAID Asst'd pilot project. One of 3 systems in West Sumatera LP3ES fielded OO's in Dec 1983	Sub-project of ADB 2nd Irr. Loan Pilot project for PBHE Agro-Inst. profiling and OO's for WUA 0 + M.	District Public Works Office	Not a project
Project Purpose	<ul style="list-style-type: none"> <li>- to increase farmer part. in all aspects of irrigation</li> <li>- to improve system design</li> <li>- to improve 0 + M function</li> <li>- to strengthen WUA's</li> <li>- to rehabilitate and upgrade specified irrigation systems</li> </ul>	<ul style="list-style-type: none"> <li>- to rehabilitate irr. system</li> <li>- to strengthen WUA's for 0 + M function</li> <li>- to test agro-inst. profiling model</li> </ul>	<ul style="list-style-type: none"> <li>- to rehabilitate main system dam</li> </ul>	<ul style="list-style-type: none"> <li>at farmer initiative to:                             <ul style="list-style-type: none"> <li>- intensify land use</li> <li>- increase area under irrigation</li> </ul> </li> </ul>
Government Role (Public Works)	<ul style="list-style-type: none"> <li>- identify sites</li> <li>- conduct survey</li> <li>- hire contractors</li> <li>- fund project</li> <li>- share 0 + M</li> </ul>	<ul style="list-style-type: none"> <li>- identify sites</li> <li>- conduct survey</li> <li>- hire contractors</li> <li>- fund project</li> <li>- share 0 + M</li> </ul>	<ul style="list-style-type: none"> <li>- conduct survey</li> <li>- hire contractors</li> </ul>	<ul style="list-style-type: none"> <li>- supply one gate</li> </ul>
Methods, Agents for Beneficiary Participation	<ul style="list-style-type: none"> <li>- WUA organization dev. via OO assistance</li> <li>- OO assistance in survey, design, and construct org.</li> <li>- mediation with gov't and contractor</li> </ul>	<ul style="list-style-type: none"> <li>- OO's placed after construction</li> <li>- WUA institutional dev.</li> <li>- Test of Agro-Inst. Profile</li> </ul>	<ul style="list-style-type: none"> <li>no systematic preparation</li> </ul>	
Assessment of Participation	<ul style="list-style-type: none"> <li>- effective in design stage</li> <li>- paid/in-kind participation in construction</li> <li>- not yet effective for 0 + M</li> <li>- no strong representative institutions in place</li> </ul>	<ul style="list-style-type: none"> <li>- none in design</li> <li>- Improvement of WUA functioning for 0 + M including improved fee collection, system alterations, maintenance</li> </ul>	<ul style="list-style-type: none"> <li>- deterioration of community initiative</li> </ul>	<ul style="list-style-type: none"> <li>- community control</li> </ul>
Lessons Learned	<ul style="list-style-type: none"> <li>- Beneficiary participation effective in design stage</li> <li>- More emphasis should be placed on WUA development and post-construction activities</li> <li>- OO's can serve as effective mediators with contractors,</li> </ul>	<ul style="list-style-type: none"> <li>- OO placement even after construction valuable</li> <li>- participation in design could have strengthened WUA's</li> </ul>	<ul style="list-style-type: none"> <li>- 0 + M cannot be hoped for without comm. participation</li> <li>- Government intervention can weaken self-reliance</li> </ul>	<ul style="list-style-type: none"> <li>- existing comm. institutions both effective and sustainable</li> </ul>

### Sub-Case A:

#### HPSIS: Tanjung Bataut West Sumatera

Following case study was assembled on the basis of information gathered through Action Research activities with the local community supplemented by interviews with local community members and irrigation officials. The main emphasis of this sub-case and sub-case B is a comparison between approach models for improving beneficiary participation in irrigation system design, development, and operation.

#### Project Genesis

The irrigation system in Tanjung Bataut is one of three pilot HPSIS (High Performance Sederhana Irrigation Systems) comprising Tanjung Bataut, Batang Coran, and Bulakan in the province of West Sumatera. The Tanjung Bataut system is classified within HPSIS as *System Design and Management (SDM)*. *Community Organizers (Tenaga Pengerak Pengairan)* are assigned to the program from the pre-design stage before any work had been carried out on dams, main systems, rehabilitation or tertiary systems. SDM is thus differentiated from *System Maintenance (SM)* whose primary systems are already in place when CO's arrive.

#### Role and Function of the Community Organizer

Two CO's from LP3ES were assigned to this system for a period of 26 months, from October 1983 until December 1985. Sdr. Syafrizal Can worked with the Beringan Sakti Water User's Association on the 'left bank' while Sdr. Syafril Salim worked with the Air Melintas Batu Water User's association on the 'right bank'. The CO's followed the entire

process of irrigation system development from *pre-design*, through *design*, *construction*, until *post-construction/Water User Association development*.

In the recollection of all concerned including farmers, village heads, the sub-district head (*camat*), and the Public Works Water supervision the CO's did a good job in conveying the concept of HPSIS to all parties. The CO's are also remembered as effective in articulating the aspirations of farmers to outside parties, and hence acting as a 'bridge' between the farming community and outside agencies, even though it is recalled that many technical proposals coming from the farmers were not accepted or implemented. Perhaps here is a perceived weakness of the CO's, in that they were not irrigation specialists and often lost arguments on technical details with outside officials including contractors and Public works officials. In retrospect, it can be seen that some of the proposals put forward by the farmers were indeed correct such as several canals that do not distribute water effectively, an area of paddy that has now turned into a swamp, oversupply of water in some areas accompanied by shortages in others, etc.

Some of the activities conducted by the CO's that the farmers remember clearly include:

- Formation of working groups for conducting measurements of acreage
- Conducting explanatory meetings concerning HPSIS and tertiary system design
- Serving as mediator in disputes between working groups and the contractor over wages paid during construction
- Serving as spokesman for the WUA in asking the contractor to improve construction quality (resulting in additional cement being used) and to add livestock bridges

- Organizing *gotong royong* work crews for system maintenance and repair
- Creating the basic budget and financial system for the WUA, and facilitating meetings for WUA formation/leadership determination
- Joining the village in protesting the fact that the promised 'trial run' of the system was never carried-out.

What most parties (farmers, village government, irrigation officials, and agriculture officials) stated as a shortfall was the short duration of the CO's work within HPSIS; especially in terms of the post-construction period. The Water Users associations had not been completely institutionalized and accepted by the farming community before the CO's had to pull-out at the end of the project. Water distribution and the integration of Water User's associations with agricultural efforts were not completely effected. There are still indications that individual interests dominate water usage, although a main task of the WUA to overcome this through the development of participatory, cooperative institutions and farmer's groups.

#### Perceptions of HPSIS

From information collected several interpretations of HPSIS emanating from different parties emerged. The following are some direct quotes:

- o "The Tanjung Bataut irrigation system is a pilot project that, if successful, will be replicated in other areas....this irrigation system is different from others in the area. Here the government attempted to create a system comprising both low and high ground; hence it becomes important that the community understand how to manage and maintain the system as a joint property. However, not all the community shares in this understanding" Taufik Kahar, Village Head of Tiakar (1)

(1) Discussion forum April 9, 1988 at WUA Air Melintas Batu including village officials, WUA members, and Public Works staff

- o "The Tanjung Bataut irrigation program is an effort to develop bottom-up participation via Water User's Associations instead of the usual 'participation' based on orders from the Water Resource Supervisor and the Sub-District head of Government". Fakhrul Umar, Area Water Resource Supervisor(pengamat pengairan) (2)
- o "The Tanjung Bataut irrigation program is a new project. By new I mean that the existing system received rehabilitation through assistance from USAID. The end goal of the project is to increase agricultural production" Moch. Nazir, Head of Guguk Sub-District Government. (3)
- o "HPSIS is a project designed to improve that farmer participation in all aspects of irrigation system development (design, construction, management and maintenance) with a view to increasing future community participation in all irrigation projects" Report on Provincial HPSIS Workshop, West Sumatera.
- o "The HPSIS pilot project is in general targetted to study methods and processes whereby the active participation of farmers in the development and management of water resources can be generated with an end goal of developing self-reliant and self-managed systems" Final Report on HPSIS project

#### Participation: Theory and Practice

The concept of farmer participation with HPSIS according to information compiled via interviews and discussions with Water User's Associations and local Public Works personnel boils down to the following for 1) Irrigation System Development, and 2) Post construction operation and maintenance:

1. *Community members will participate in irrigation system development by:* (4)
  - Proposing changes and addtions during the design stage
  - Serving as a source of labor during the construction stage
  - Becoming an active member of a Water User's Association

(2) Interview, April 5 1988

(3) Interview April 9, 1988

(4) Discussion forum statements from Amril, Head of WUA Air Melintas Batu and group members, April 7, 1988

*What actually occurred in Tanjung Bataut during HPSIS system development :*

- o *Design proposals from farmers: (5)*
  - Improvement of main dam design (proposal accepted and proven functional)
  - Livestock bridges
  - Increased height of canal walls in certain areas (accepted and proven functional)
  - Materials improvement for certain structures (proposal rejected, hence structures failed and had to be rehabilitated)
- o *Provision of Labor*
  - Farmers 'participated' in construction as paid labor for the contractor. Disputes arose concerning wages between the contractor and the head of the 'right bank' working group. 34 workers from Tiakar and Kuranji quit work over this dispute after working for three weeks.

*Post Project participation of community members will include: (6)*

- o Maintain the flow of water to rice fields.
- o Maintain canal constructions
- o Undertake *gotong royong*(mutual assistance) activities to repair canals under supervision of the Village Head
- o Undertake *gotong royong* activities to maintain irrigation structures under the supervision/at the initiative of the Water Resources Supervisor
- o Undertake *gotong royong* canal clearing/cleaning activities via farmers groups
- o Contribute membership fees to the WUA

*Actualization:*

- o Most of the water flow control is undertaken by local farmers groups under the guidance of the Ministry of Agriculture. These groups meet often (exact frequency unknown/unrecorded). Disagreements are settled at meetings

- (5) *ibid, discussion forum*
- (6) *ibid, discussion forum*

at the village level, or if necessary at the local Agriculture Extension station. Some block groups within the Beringin Sakti WUA are also active in water control/allocation activities including Block IV (29 ha). These activities are mostly to repair systems damaged by farmers from Block III under the direction of the Block III leader.(6)

- o Maintenance was carried out by local farmers especially in areas where the farmers had previously complained of poor construction materials and where subsequent deterioration did occur. Anti-erosion measures consisted only of wood, banana trees, and mud.(7)
- o *Gotong Royong* organized by the Village Head of Tiakar tackled the above mentioned problem. 40 community members turned out to work for 4 days. Local women supplied food for the workers. This rehabilitation work was worth approximately rp.450.000,(8)
- o *Gotong Royong* for maintaining canals at the instruction of local Water Resources supervisor. 10 farmers were organized, including one of the leaders of the Beringin Sakti WUA, to clean canals and repair damage (including the intentional damage done by the Block III group). This activity took nearly 1.5 months due the fact that after the initial activities only 2 farmers continued to work (other were either sick with malaria or had to plant crops). Provided with rp.1.500 per day for labor from funds of the local Water Resources Office, the repairs/maintenance cost approximately rp.400.000,(9)
- o *Farmer's group gotong royong*: farmers' groups in a number of villages have been active since late 1987 in organizing their own self-help *gotong royong* activities for cleaning, clearing, and maintaining irrigation works. Strong groups are located in the village of Kubang Tungkek and Tiakar.(10)
- o *WUA membership dues/contributions*: for the most part the collection of contributions has not gone well. The WUA of Air Melintas Batu has not collected any dues since its inception. This is due to the fact that they feel the Water Resources Office failed to keep its promises: i.e. the contractor had promised to perform a trial run of the 'right bank' system before leaving.(11) The Beringin Sakti WUA

(7) Discussion with farmers

(8) *ibid*, discussion forum

(9) *ibid*, discussion forum

(10) Farmers on 'Left bank'

(11) Interview with *SADAR* farmers group, 6 April 1988

(12) *ibid*, discussion forum



also has had trouble in collecting dues from all members because some feel they are not getting sufficient water to fulfil their needs. (12)

### Perceptions of Farmer Participation

In the perception of the *Water Resources Office of the Provincial office of Public Works*, farmer participation in irrigation is defined as encompassing:

- Obtaining information from key farmers concerning important sites for irrigation in their area during the survey period. This is in line with Public Works policy which states that water should be brought to the farmers, not vice versa.
- Developing collaborative relationships between farmers and Water Resources officials in the development of manuals and plans for the Irrigation Board (sub-district level) so that cropping patterns and consequent irrigation patterns can be planned and organized for each planting season.(13)

The viewpoint of the *Areal Water Supervisor* towards participation varies somewhat; he emphasizes the importance of developing strong WUA that will conduct routine, self-reliant *gotong royong* activities concerning both maintenance and management of irrigation systems utilizing funds raised from WUA membership. Current *gotong royong* activities tend to originate from instructions from government officials and consequent payments to farmers for their 'participation'.(14)

The *Water Resource Supervisor at the sub-areal level*, Mr. Aditiawarman, defines participation as the willingness of farmers to follow the established cropping pattern and schedule so that the distribution of water can be easily done.(15)

In the view of the *Sub-district Government Head (camat)* of Guguk, Mr. Moch. Nazir, farmer participation in maintaining and

(13) Farmers on 'Left Bank', 6-9 April 1988

(14) Interview with Provincial Water Resources Officials, 10 April 1988

(15) Interview with Fakhru Umar, 10 April 1988

(16) *ibid*, discussion forum 9 April

managing water resources cannot yet be hoped for since WUA are relatively new institutions. He is personally trying to increase the effectiveness of the WUA in this area through the issuance of an instructional letter (dated March 23, 1988) concerning the improvement in the performance of Farmer's groups addressed to all village heads with one copy going to WUA leaders. In this letter he states frankly that farmer's groups (*kelompok tani*) organized by Ministry of Agriculture extension workers are doing more in the way of irrigation system maintenance and management than are the WUA in Tanjung Bataut. He also states frankly that the WUA in Tanjung Bataut is far less effective than similar WUA in other villages of the sub-district.(16)

In the view of a *local informal leader*, Datuk Rajo Mangkuto of Padang Japang, 'participation' via the WUA is still *semu* or artificial since WUA have no local roots but rather merely represent an institution 'dropped from above' by the government. He contrasts the current WUA with *Serikat Tani Islam* (Islamic Farmer's Associations) of the 1960's . "Just look at the conditions of these canals" he states. And of the WUA meetings, "watch the process....see who talks the most and make the decisions. If this is 'participation', how can the aspirations of farmers be heard?"(17)

### Critical Incidents

During the participatory process of gathering data on the origins, history, and functioning of the Tanjung Bataut irrigation system, the following were pointed to by WUA members as being of significant interest:

- (17) Interview and discussion forum
- (18) Interview April 5, 1988

1. Farmer-contractor disagreements: differences arose between farmers groups 'participating' in construction and Public Works contractors in the villages of Tiakar and Kuranji concerning the amount of compensation to be paid to daily labor. The farmers felt tricked when after working they were asked without warning to make part of their assumed payment an 'in-kind, self-reliant' contribution. The CO intervened to cool the situation and an understanding was reached. However, the farmers refused to undertake any further construction work.(18)
2. Project Sanctioning: the official turn-over of physical works from the contractor to the Public Works office was done without notifying the community. Members of the 'right bank' WUA felt abused since the Water Resource Supervisor had promised an trial run of the system before official turn-over in order to see if water would indeed reach Block VI in sufficient quantities. Due to this, the WUA in this area was never activated even though everyone had signed-up as members.
3. A new swamp : a new area of swamp began to emerge on the right side of the Guguk-Tiakar road near a settlement area (across from distribution box 4 ka.) The new swamp covers an area of approximately 5 hectares. According to the farmers in the area, the swamp is caused by the insufficient height of the canal walls in the area such that water overflows uncontrolled into padi fields. The low walls run for about 200 meters; and farmers state that this was one suggestion they previously brought-up with the contractor and with the Public Works department to no avail.
4. Unintended wasteway: an unintended wasteway, or drainage path has emerged to drain the swamp mentioned above. This wasteway is only 10 meters from the bridge supporting the Guguk-Tiakar road. Excess water flowing into the Batang Pinamang river (the primary water source for the system) is already beginning to erode the river banks close to the bridge, bringing on the fear that the bridge foundations might be undermined to a dangerous degree. In other words, the amount of water flowing to this area through the new system is excessive.(27)
5. Canal bank decay: this decay is evident to the east of Box 4 Ka. Walking on top of the canal banks yields vibration and is very slippery. The foundation is not solid and the banks have decayed 30-40 cm. This occurs for about 700 meters. These banks have been reinforced by farmers many times using bamboo and wood to no avail via *gotong royong* activities initiated by the village head of Tiakar. Unfortunately these activities have not yielded a permanently strong foundation. This problem was brought up with both the contractor and the Public Works supervisor during the construction phase, but farmer concerns were not heeded.(19)

(19) *ibid*, discussion forum

(20) Interview with block head and farmers, April 6-9, 1988

(21) *ibid*, situational mapping

6. Lack of water for certain rice fields: a 25 hectare area (Block VI) now experiences a shortage of water, whereas they felt they had been promised a sufficient supply through the development of the Tanjung Bataut system. Due to the shortage, they often 'borrow' water from the Bandar Burai irrigation canal (south of Kuranji village) as well as pray for enough rain.(20)
7. Poor selection of WUA leadership for Beringin Sakti: since the leader of the WUA does not have personal influence in the eyes of the membership (unclear how this happened). One Block leader ignores water needs of a substantial area (71 ha) comprising Bloks IV, V, and VI by dumping 'excess' water into the Batang Pinamang river. This has occurred on numerous occasions. In reality, the head of the Beringin Sakti WUA did not want to be elected to the position since he already is a neighborhood official (*kepala dusun Guguk*); however he was afraid to reject the result of the election by persons from Kubang Tungkek, Guguk, and Koto Dalam. Another reason he stated was that he did not want to accept any official position until a village head was officially appointed for the village of Guguk. Since December 1985 this position has been held by the Sub-district Head of Government. The head of the WUA will only mobilize his membership based on direct instructions from the Sub-district Head, the Areal Water Supervisor, or the local Ministry of Agriculture office.(21)

### Current Status

In summary of the above the current status of the Tanjung Bataut system can be described as:

1. Some deterioration of physycal structures: especially in the 'right bank' area, the condition of the secondary and tertiary canals are far from optimal (decayed banks, unintended spillways, swamp development etc.)
2. Distribution Management remains a problem with some 52 hectares on the 'right bank' experiencing water shortages (25 ha are critical and forced to 'borrow' water or count on rainfall). On the left side some 71 hectares do not get sufficient water, with some 29 hectares in critical condition.
3. WUA Offices: donated by the contractor after construction activities were concluded are seldom used and in poor condition (chairs missing, glass broken, etc.)
4. Maintenance of the system which should be the ongoing function of the WUA is not evident. Most maintenance activities come via '*gotong royong*' ordered by government officials.

5. Sustainability of WUA's is questionable since they are for the most part only activated by government instruction. The Air Melintas Batu WUA is being reconstituted after a cessation of the 'boycott' by the head of the WUA. The official papers of both WUA's in the system (basic rules, sanctions, and budgets) remain in the hands of the Areal Water Resources Supervisor (as they have been for the last year).(22)
6. Farmers' group activities organized by the Ministry of Agriculture are more significant in handling irrigation matters than are the newer WUA. These also tend to function only upon instruction from government officials. WUA, in other words, have never taken full-root in the area. Coordination between the two bodies has never been fully attained as a spirit of competition prevails.
7. Coordination between the Ministeries of Agriculture and Public Works at the local level needs to be improved.
8. Increased number of harvests: despite these problems, there has been an increase in the number of harvests within the Tanjung Bataut irrigation area as a result of the rehabilitation of the system and the development of new water resources infrastructure.
9. The participation of women is high, in most part due to local Minang culture. Women take part in all agriculture activities side-by-side with men including manual labor for irrigation system maintenance. Irrigation works serve a number of secondary purposes for women, including those who glean snails (*siput*) from the canals to supplement food supplies. In the *Kelompok Tani Sadar* (the 'Awareness farmers group') women members outnumber males 2 to 1. These women also maintain the irrigation system channels in Block I and II while maintaining 0.75 ha of communal rice paddies.

Trends visible within the Tanjung Bataut Irrigation System:

1. Organizational consolidation: while disputes and troubled history remain, all parties expressed the desire to improve the functionality of the WUA's. Whether they can achieve this without outside intervention remains to be seen.
  2. The system will continue to deteriorate if the local government authorities concerned do not intervene with technical assistance and funding. Especially important in this regard is the development of strong WUA's to handle continued maintenance and rehabilitation activities.
- (23) One of three 'consensus decisions' arrived at via the meta-planning activity : 1) Cease the 'boycott' of WUA Air Melintas Batu, 2) Close the canal causing the swamp and request Government funding for constructing a new canal, 3) continue dialogue with local Public Works officials

### Assessment of the HPSIS Model (as seen in Tanjung Bataut)

1. CO Placement Timing: CO's were effective in system design and construction and indeed served as 'mediator' and 'bridge' between all parties. However, the timing of CO placement in this particular case was not well coordinated with the goal of WUA development and long term sustainability. This might have been the result of administrative and coordinational problems. It is recommended that CO's continue to work with WUA's in system management and maintenance for at least two harvest seasons after the completion of construction activities. If pre-design and design activities are well-organized, a 6 mo. lead time should be sufficient. More time should be given to WUA consolidation for maintenance and operation after construction.
2. CO technical skills: CO's assisting with design issues should receive more training in technical matters so that they can better transfer this knowledge to farmers and so that they can better perform their mediator role vis a vis contractors and government agencies. This will help in strengthening the bargaining power of the WUA.
3. Participation: as noted by a number of officials and village members, most 'participation' comes in the form of instructions and payment from government officials. Some farmers groups have proven effective at organizing their own activities and mobilizing funds. Even though this was the 'worst' of the three pilots, the community eagerly participated in activities and expressed the desire to continue.
4. WUA's: developing WUA's into effective organizations will take concerted effort. CO's are still leading and performing as spokesmen for the groups. While seen as effective, a leadership vacuum occurs when the CO leaves since role transfer is not complete.
5. Cross-Agency Coordination needs to be strengthened, especially the level of integration between such bodies as the Water Resources Office, the Ministry of Agriculture Local Office, and the Village Cooperative Unit such that farmers receive consistent messages from the government.

### Summary

The outcomes of this single case confirm and strengthen previous findings and studies on HPSIS (23) in that:

1. Beneficiary Pilot: HPSIS seems indeed to have overcome some of the flaws within the *Sederhana* small scale irrigation program which were attributed to a lack of consultation with the farm community. A number of important technical flaws in the system were overcome through consultation with WUA before construction.
2. Design vs. Operation and Maintenance: while achievements were strong with reference to beneficiary participation in the design stage, weaknesses are clearly evident with regard to the development of a strong local institution to carry-out operation and maintenance activities. Persons directly related to the site state that while well received, CO's were forced to leave before WUA were consolidated in any way other than 'formally' (i.e. all were registered and a basic budget was created).
3. Sustainability: with direct reference to the above, the WUA's in Tanjung Bataut are not strong; especially in light of new policy initiatives for small scale irrigation system turn-over.
4. Participation: community participation is limited to presence in that villagers are consulted on design issues, but all major decisions are outside of their control. No strong representative mechanism is in place to insure that their aspirations are heeded. Villagers 'participated' in construction activities for pay; however even this proved problematic. Difficulties have been encountered in collecting contributions to the WUA. In view of some, the WUA still represents a 'top-down' institution created for the benefit of outside organizations and projects.
5. CO Role: LP3ES states that CO's should function as a 'bridge' between community and government/contractors. Other terms applied to the CO role include 'mediator', 'catalyst', 'facilitator'. In terms of being a spokesman for WUA and the farmer community, the CO was effective; however this is in a sense 'outsiders dealing with outsiders' along with the fact that LP3ES CO's were perceived to be heavily backed by international agencies and higher levels of government. While effective in short run implementation (within the borders of an irrigation construction project) the CO was highly effective, in terms of developing a sustainable system the 'spokesman' role is questionable due to the dependency that develops.
6. Timing of CO placement: the Tanjung Bataut system is designated as a "system design and management" model in that CO's work with both system design, construction, and institutional development. The latter is noticeably weak. More time and attention has to be invested in the development of sustainable local WUA capable of handling turn-over responsibilities. A classic complaint encountered was that the CO was well received, but that he left too soon (the project finished). If maintenance, operation, and WUA institutionalization is taken seriously, as current policy

initiative indicate, CO's should remain on-site for at least two harvest cycles subsequent to system construction completion.

7. NGO Role: the role of LP3ES in furthering the cause of beneficiary participation in irrigation extends much further than their work in specific field sites. The technical assistance role played by LP3ES in the HPSIS program illustrates the strength of a national NGO in influencing not only local implementation but national policy and provincial/district conceptions. As a caution, however, the HPSIS program represents at best a 'pre-dissemination' pilot including only 21 systems. Whether national NGO resources are sufficient for further dissemination through a large and complex system remains to be seen. For this, new approaches and deployment strategies vis a vis line agencies need to be considered.
8. Methods and Materials: efforts to date have been exploratory and pilot in nature. Since CO time in the village is a budgetary efficiency concern, a look needs to be taken at what is actually done in the field and how long these activities take. Merely stating that it take several months 'to gain acceptance of the community' is not acceptable! Community participation is best facilitated, and institutions best built through the conduct of discrete, concrete activities. As shown by the 'participatory evaluation' conducted by this program, most communities are quite willing to participate in interesting, relevant activities. For dissemination purposes, more attention will have to be paid to the development of solid community approach tactics that are transferable and replicable, i.e. those that can be contained in manuals/materials and can be transferred to others via training and follow-up supervision.
9. System Analysis: within the HPSIS pilot project format LP3ES was effective in influencing much more than a set of irrigation systems. From the beginning a strong component of learning and 'action-research' was built in which has allowed the pilot activities to have impact all the way to national policy. This impact is also due to the flexibility and support of national government personnel and donor agencies. For the future, more attention will need to be paid to aligning an entire system with new policy demands in order to avoid the schizophrenia of either old wine in new bottles or disfunctional goals, organizations, and functional relationships in relation to overall policy goals. This reorientation and alignment of 'rhetoric with resources' will be especially crucial in obtaining the necessary inter-agency consensus and coordination necessary to allow and support development of farmer owned, maintained, and operated irrigation systems.



### Sub-Case B:

#### The Maligas Tongah Irrigation System

This case serves as an approach comparison with Case A. As in the first case, a national NGO, Bina Swadaya, was involved in assisting the Department of Public works in developing models of improved beneficiary participation in irrigation system design, development, and operation. Through the processes undertaken in the village plus interviews with key persons, the following picture of this irrigation system was assembled.

#### Project Genesis

Irrigation systems in Maligas Tongah were initiated originally in 1946, with the opening of the People's Basic Irrigation System (*Irigasi Rakyat Sederhana*) . This system took water from the Bah Tongguran River for the irrigation of several hectares of wet rice fields.

In 1967 the community convened a meeting to form a committee for irrigation development (*Panitia Pembangunan Sistem Irigasi*). Mr. J. Sihalohe was elected chairman of this committee. Henceforth a number of small efforts were undertaken by the community to improve the existing irrigation system, but the results left much to be desired in terms of area covered and amounts of water allocated.

In 1970 the government intervened via the Department of Public Works. The Government appointed Mr. Buliher Siahaan and Mr. Suita Pohan as contractors for the development of a main dam, a storedam, and semi-permanent supply canals. With these works, the Maligas Tongah irrigation system was raised in status from a village irrigation

system (*irigasi desa*) to semi-technical irrigation (*irigasi semi-teknis*). There was a noticeable improvement in the amount of water made available to the system through these improvements, but this was still felt to be insufficient for supplying all the needs of the area under cultivation. This improvement program ran through 1983.

Since 1975, as is the case with most irrigation systems, Water User Associations, or WUA were formally introduced with the stated purpose of managing water distribution.

In August 1984, a major project was initiated with the express goal of raising the Maligas Tongah irrigation system from the category of semi-technical to technical. This program was sponsored by the Government with financial support from the Asian Development Bank. Initial site surveys were conducted by consultant teams from the Philippines and Korea.

#### The Role and Function of Farmer Participation

At present the role and function of the WUA in Maligas Tongah, as well as in other systems found within Simalungun, is limited to water resource management and distribution. These organizations have been appearing since 1975, but for the most part they remain 'formal', i.e. created by outside government initiative for limited purposes.

The arrival of Bina Swadaya Community Organizers (CO's) in 1986 brought about a number of positive changes in the form of improved WUA organizational effectiveness and self-reliance. At the point where Bina Swadaya arrived, the three villages involved with the Maligas Tongah system possessed eight WUA:

Bina Swadaya CO's worked to re-activate basic WUA functions such as maintenance activities through *gotong royong*, the collection of membership and system user dues. Despite these initiatives, many of the WUA remained static and ineffective. This difficulty in re-activating the WUA's might be attributed to the following factors:

1. The WUA were only 're-activated' after the physical development of the system was complete
2. Bina Swadaya itself faced conflicts of interest in that on one hand their CO's were to represent the community and motivate the WUA's toward self-reliance, while on the other hand their official status was as a 'project contractor' under the auspices of the Simalungun Irrigation program. The Bina Swadaya CO's were well received by the community despite their difficult institutional situation.

#### Problem Mapping

In developing this case study, members of three WUA's, village water supervisors (*ulu-ulu*), village government personnel, and the watergate manager (21 persons total) were involved in a "mapping exercise": the group plotted the system as a map and then conducted a walk-through with camera in hand. Photos were taken of 'satisfactory elements of the system' and 'system problems'. After this, findings and photos were discussed by the group. Much of the system is in good shape and functioning well. Despite this, many of the findings of this exercise were in the form of complaints, as listed below.

1. Livestock Bridges are not adequate hence animals enter canals and breakdown canal walls in crossing
2. Control Boxes too low: BMT-2, HM-8.5, and BMT-4 are too low; causing several fields (approx 2.5 ha) to receive insufficient water
3. Insufficient canal depth at HM-1 and HM-2 such that water velocity and volume is insufficient in a 100 m canal running from the dam

4. Poor linings: canal lining at HM-3 is too low, adding to erosion.
5. No diversion structures: in HM-8.5 tertiary canals have no distribution structures, making water allocation difficult.
6. Lack of wasteways in HM-8.5 such that water overflows tertiary canal banks to spill into the river, threatening existing terraces along the river bank.
7. Flume walls too low such that when the gate is opened water overflows the walls, causing erosion to nearby land and endangering the flume itself.
8. Non-functional diversion boxes in BMT-1 right including one non-operational box and one box already buried in earth.
9. Damaged drop structure: the last in a series of 5 drop structures in BMT-1 left is broken, causing water flow out of control and damage canal walls.
10. Wasteways are needed in BMT-1 left and BMT-3 right to stop silting and erosion from overflow.
11. Poor location of washing steps including a lack of such structures in the densely populated Sopo Gorat area to the point where villagers were making their own washing steps.
12. Flooded cemetery: in BMT-5 rightside a cemetery is flooded each time the gates are opened.
13. Water flowing uphill: sub-tertiary canals in BMT-T do not function since water will not flow uphill.
14. Control boxes: none of the 14 control boxes in the Maligas Tongah system are functional. Most are too low and hence subject to siltation.
15. Primary and Sub-tertiary lay-out: in BMT-6 a sub-tertiary canal runs directly adjacent to the primary canal, leading to worries that the walls of the primary canal will be weakened. The two systems were done by different contractors and coordination of their activities is questionable.
16. Insufficient water: lack of water is experienced by farmers in BMT-7 and BMT-8 to the point of near violent competition for water. In order to avoid this, water is being taken directly from the primary canal.
17. Low canals: in SMT-1 the canal is too low/deep such that water cannot flow. Farmers nearby have made holes in the canal in order to obtain water.

18. Small gates: in SMT-2 a small tertiary gate was placed in a secondary canal, constricting water flow. Nearby farmers have broken this gate to allow for sufficient water release
19. No dialogue with contractors: most farmers complained that contractors avoided contact with them, or merely referred to the contract specifications when farmers questioned design.
20. Jurisdiction: WUA members are still confused as to their rights and obligations concerning the system. What has been turned over to them? What are their responsibilities? Where is the line between Government and WUA responsibility?

Most of these problems seem to have arisen due to the fact that there was little effective communication between the Irrigation Project contractors and the farmer community either before or during construction. CO's arrived to 'smooth' the program only after construction had been completed.

Villagers state that they found themselves in the role of the 'audience' who watched passively as an irrigation system was constructed for them to serve their needs. When they did raise questions, they seldom received satisfactory answers. As they state, each time they raised a technical question concerning the system, especially if their inquiry would lead toward a modification of established designs, the contractors responded by pulling out the formal design (*bestek*): stating that if they did not follow the design to the letter they would not get paid.

Further, there was a contractor who would have nothing to do even with official village government officials; stating a fear of these persons 'meddling' in his work and causing difficulties.

The overall impact of this was that the community did not ever receive a clear explanation of what the overall goal of the project was to be nor why the system had to be developed the way it was. The end result has been a number of installations that are minimally utilized (ex.:

control boxes) plus the feeling within the community that necessary structures were neglected (washing platforms, bridges, flumes, livestock baths, etc.).

### System Development Approach

The approach utilized in Mailgas Tongah is reflective of the centrally planned, technical approach to village infrastructure development. All planning and construction was undertaken by outside agencies or contractors with minimal contact with the community.

The Socio-tech survey and the placement of CO's within the community was not nearly as effective as it could have been due to the fact that these activities were undertaken as a totally separate effort with little connection to the development of the system itself. Hence the development of the system and the development of community participation ran on parallel, and unintegrated, paths.

### Achievement of Project Goals

The stated goals of the project were as follows:

1. The development of a permanent system that should be long-lasting and require minimal maintenance
2. The mobilization of community participation to perform maintenance and management functions

### Current Status:

1. System condition and functioning: Most of the structures built under the auspices of the project are still in good order and functioning well. The total amount of water available to the system has been increased. However, after the rehabilitation project some

areas previously receiving sufficient water are now in a deficit situation. Some 5 hectares, or 2% of the area with the total system are now lacking water.

2. Number of harvests: Several areas within the system can now produce two harvest per year.
3. Extensification: while a primary goal of the project, this has not been realized since farmers in Tanjung Pasir and Jawa Tengah are reluctant to give up their rubber and durian plantations and convert to irrigated rice field. Reasons stated concern monetary returns and ease of maintenance. The government seems intent upon 'strongly encouraging' these farmers to make the conversion via the rice field program of the Department of Agriculture. At present this is on hold due to a shortage of funds. (farmers will be given credits for the conversion process)
4. Technical design issues: while the system was carefully designed and fulfilled all technical requirements, some problems have arisen none the less. For example, farmers in the BMT 1 area have had to 'bore' the primary canal and re-channel water into tertiary canals since the rehabilitated system is totally non-functional. This was undertaken by the WUA Lestari in order that 10 hectares of theirs would still receive water.

Additionally, some control boxes are not functional, and an overflowing flume is causing erosion dangers.

5. Community Participation: the organizational development of the WUAS's via the project is quite obvious. Groups work well together in discussing issues and making plans, and even in collecting user fees. Inter-group cooperation in water distribution has also improved. *Gotong royong* activities have also been organized to repair and maintain systems as well as to make some modifications in the system. These are the functions of participation as envisaged within the project.

### Summary

Clearly , current levels of participation and organizational strength would be higher had the community been involved as more than spectators during the survey, design, and construction phases of the project. This could also have led to fewer technical system difficulties and greater community satisfaction. Due to the lack of contact in the early stages of the project, local farmers were seldom even used as labor for construction.

Perhaps due to this late generation of participation, and due to the fact that formally Bina Swadaya was a project contractor, some community members remain suspicious of the intent of the WUA's. As with other programs, they feel that their leaders gather them together purely to obtain joint agreements to perform labor or contribute funds in order to *ikut mensukseskan proyek* (assist in making the project successful). This feeling is especially strong in Tanjung Pasir, where the farmers are not as yet willing to yield to the government's wishes and convert their rubber and durian plantations into rice fields. Some of this might be due to the methods used which emphasize the important role of WUA management and leadership.

This is currently a common pattern of 'participation' in Indonesian government development programs. Efforts to widen the definition of participation after the fact (i.e. after construction) through the use of CO's are constrained from the start. A side effect of this, as is evidenced in Maligas Tengah, is that while the community is very appreciative of the intensive assistance received from CO's there is a sense that they became dependent on the CO's for guidance and mediation with outside agencies.

Efficiency and Effectiveness issues cannot ignore the large amount of outside funding received by this system. The total budget for the physical construction was rp. 1.322.784.000, or roughly rp.1.674.410 per hectare of system coverage area. Another striking feature is the sheer amount of water that can be handled by the new intake dam (1.011 m<sup>3</sup>/s). This amount of water can easily cover more than the planned 790 hectares within the current system. This oversupply of water in the system is causing certain problems: a lack of drainage works is



causing water to form swampy areas; at another point overflow into a ravine is beginning to cause erosion and landslide worries for neighboring farmers.

CO placement, even after construction, has been effective in Maligas Tongah. Farmers have come to understand their system better and are better able to work together in the management and maintenance of their system. Had CO's been placed during design and construction, the WUA's would be even stronger and the list of complaints concerning the system considerably shorter.

A weakness in this model is the parallel contracting of Bina Swadaya's role. The work of CO's to improve WUA functioning seems like an 'add-on' component not yet integrated into the overall system of irrigation development. Just as contractors are hired for physical works, so too are contractors hired for 'non-physical' works.

Sub-Case C:

The Paluh Kemiri Irrigation System

There has been a suspicion that government intervention in traditional systems has not been all positive. This case examines what can happen when government programs intervene in order to 'improve' local systems without offering any assistance in developing the requisite local institutions for system operation and management. This case compares directly to the traditional in Lestari that will be the subject of sub-case D.

Project Genesis

As of 1950, the current rice fields in Paluh Kemiri formed part of a privately owned coconut plantation. The villagers were allowed a concession to cultivate plantation land as long as they did not disturb the coconut trees; but when the concession lapsed, the villagers continued to exploit plantation land until they were finally granted full rights by decree of the District Head of Deli Serdang in 1973.

The Paluh Kemiri irrigation system is a case wherein a simple (*sederhana*) village irrigation system was upgraded to a semi-technical system (*sistem semi-teknis*) via assistance from the government office of Public Works and local contributions. Key stages in the development of the system are as follows:

1952: Lead by Mr. Maryoso and Mr. Soedimedjo, the community in Paluh Kemiri developed a simple irrigation system bringing water to approximately 75 hectares of rice field.

- 1965: To increase the amount of water available to the system, the community on its own initiative and with its own funds build a dam 2 meters by 6 meters with concrete walls and footings.
- 1968: With the arrival of High Yield Varieties the community organized the first formal Water Users Association (*P3A*). In the same year, the association undertook the construction of a dam on the Ketapang river made from sandbags and reinforced with a bamboo frame in order to add more water to the irrigation system.

This new dam allowed for a total area of 150 hectares to be effectively irrigated. However, the new dam had to be rebuilt before each planting season.

- 1974: The community organized to add 5 flumes to the system made from 8" steel pipe bringing water to 3 new areas (neighborhoods II, III, and IV) across the Galang river. This work required an investment of 3.5 million rupiah by the community for materials.
- 1983: With funds from the North Sumatera provincial development budget (APBD) for the Ministry of Agriculture in the amount of rp.10.000.000, along with rp.4.000,000. from the Deli Serdang District Public Works office the Ketapang river dam was brought up to the technical category (*bendungan teknis*).
- 1985: With a combination of local contributions and Village Development Funds the flumes constructed in 1974 were rehabilitated and an additional flume serving neighborhood IV was added at a total investment cost of rp. 1.750.000,

#### System description

The Paluh Kemiri irrigation system is classified as a semi-technical system having as its main features:

1. 2 primary canals totaling 3.5 km in length
2. 4 km of tertiary canals
3. 6 pipe flumes
4. A total irrigated area of 150 hectare

This community does not show a great deal of social solidarity. This probably originates in the fact that some 60% of the landowners live outside of the village, and that the community is dominated by certain informal leaders including pensioned police officers. The water supply for the irrigation system is also dependent on upstream systems,

although no formal agreement has ever been reached with the owners/operators of these systems. Since these systems are under government supervision, the community feels it is outside of the influence and sphere of affairs to deal with such issues.

Previous to Government 'upgrading', the community had been relatively successful in developing a rudimentary system serving 150 hectares of rice field. Although their structures were temporary in nature, they were consistently rebuilt by the community each year in order to guarantee a continuous supply of water.

#### Government Intervention

When the Department of Agriculture and the Public Works Department undertook the construction of a permanent dam in the area, little was sought in the way of community participation or involvement. No provision was made for strengthening the existing WUA nor for preparing the community for the tasks of maintaining and operating the new dam.

#### Community Institutions/forums for participation

The community had formed its own WUA in 1968. The purpose of this organization was to insure the continuity of dam rebuilding and maintenance of the existing system. This WUA functioned well when faced with concrete, short-term tasks such as raising community funds to make additions to the system or for specific rehabilitation.

Despite this, the WUA has never progressed to more substantial issues, i.e. it does not serve as an effective forum for the resolution of disputes between upstream and downstream water users nor does it attempt to supervise allotments and distribution.

## Trends

Since the intervention of the Departments of Agriculture and Public Works, the level of community control and participation seems to have corroded further.

1. WUA Membership Contributions: the WUA has established a system wherein water users contribute rp.300 per *rante* irrigated. For the 1987/88 harvest season the WUA succeeded in collecting only rp.450.000, (by neighborhood: I: 200.000, II,III,IV: rp.250.000,) This falls short of the cost for routine maintenance of the system which is estimated to be rp.1.125.000,
2. System Maintenance: since the upgrading of the dam by the Government, the community seems to have disavowed responsibility for its upkeep. At present one wall of the dam has cracked and the whole structure may soon collapse: no one in the village has undertaken repairs or maintenance.

## Analysis

Over time this community had established a basic irrigation system plus a rudimentary institution to keep the system running. Activities of the WUA were limited to basic system operation issues arising from joint needs (i.e. to rebuild the dam each year).

More complex institutional tasks were never tackled. These include the settlement of distribution issues between upstream and downstream users and relationships with other upstream systems affecting their water supply. Attempts to turn the WUA into a institution with some continuity (i.e. the institution of membership contributions, basic budget, etc.) were not successful. This community does not represent a 'compact' social unit, due to a great deal of absentee landlordism and a stratified social order dominated by certain informal leaders.

In sum, what participation there is by farmers in terms of irrigation system development and management is basic. They are willing to contribute funds and labor for specific concrete tasks directly affecting their water needs, but have not established an ongoing institution. Most WUA activities were initiated and led by influential individuals.

Into this scenario came a relatively heavy investment in dam upgrading by the Government, along with the tacit assumption that the community would pick-up the new burden of maintenance and operation. No specific activities were undertaken to involve the community in the rehabilitation program. No specific programs were undertaken to strengthen the WUA so that it might be able to take responsibility for its new 'assets'.

In summary, if the new dam does indeed crumble away; it remains to be seen if the community will return to its previous custom of rebuilding a simple dam each year, or if they will merely wait for another government assistance package in the form of another rehabilitation project. In some circles, the development of programs such as this are called 'routine projects', (*proyek rutin*) in that it is clear from the outset that the project will have to be repeated periodically.

In the climate of increasingly tight budgets for public spending for infrastructure, interventions such as this one cannot be viewed as a wise use of scarce development funds.

### Conclusions

Comparing this system to the Lestari system (Sub-Case D) and claiming cause and effect is too facile. Be that as it may, certain issues

are too clearly enunciated to be ignored. Most probably two factors lead to the differences in beneficiary participation.

1. Social Polarization: from discussions with WUA members, leadership, village leaders, and agriculture personnel this becomes clear. It seems that irrigation maintenance and utilization is assumed to be the responsibility of the farm laborers (according to landowners), and the responsibility of the landowners (according to the laborers) (1) According to WUA members (mostly landowners) it is the farm laborers who must make contributions to irrigation system maintenance. Landowners blame poor contribution collection on the fact that laborers often move from field to field and deny responsibility for having worked a certain location previously. WUA leaders are unable to apply any corrective sanctions (stopping water supply) due to the fact that downstream farmers (both owners and laborers) happen to be the ones who tend to pay their contributions. Meetings have been held to solve this problem, and most often agreement is reached within the meeting that everyone will contribute his 'fair share': collection subsequent to the meeting is a different issue. In most cases the WUA leadership carry-out maintenance on their own "rather than wait for awareness and gotong-royong that might never come" (2) This contrasts with information from other informal leaders stating that before landowners became absentee, *gotong royong* activities were the norm.
2. Government Intervention: into this context of uncertain social standing and irrigation responsibility comes a strong injection of government assistance, replacing probably the only artifact of common community interest, the irrigation dam. Government assistance is not the primary cause of poor participation, but in such a setting this type of assistance can only exacerbate existing problems and erode social solidarity even further.

Possibly irrigation systems like Paluh Kemiri are most in need of solid pre-design 'Socio-Technological' surveys that will indicate the level of social stratification and hence the amount of community development work that must be done in order that any inputs of infrastructure can have a beneficial effect for the majority of farmers in the community.

(1) From discussions with WUA members and local farmers  
 (2) Interview with WUA chairman, Paluh Kemiri April 12, 1988

### Sub-Case D:

#### The 'Lestari' Village Irrigation System

This case is a direct contrast to *Paluh Kemiri*. Previous studies had indicated that traditional irrigation systems possessed a number of strengths, but most of these studies were done on systems in the well known rice cultivating cultures of Java and Bali. *Lestari* is a traditional system adjacent to *Maligas Tongah*, and hence poses an interesting contrast within North Sumatera. Most important is the amount that we must learn from traditional 'participatory' systems that effectively served community needs. In contrast to *Paluh Kemiri*, and even to the pilot project sites, it is possible that many development efforts undermine traditional systems that are difficult (and expensive) to replace.

#### System History

The Lestari irrigation system is capable of providing 60 hectares of land with enough water for two harvests per year. The system was pioneered by two community leaders in 1954. Mr. Kasan was a retired Public Works employee and Mr. Marjo was the head of the neighborhood association. Mr. Kasan especially had a desire to develop his village's irrigation system since he himself was an ex-official of the Public Works department. Their initial activity involved the opening and irrigation of 25 hectares of ricefield.

1959: the community felt the need for more extensive cultivation. At this time they extended their ricefields and irrigation system another 35 hectares. In truth, this effort was in part to strengthen the community's claim on 108 hectares of government



tea plantation. The creation of permanent infrastructure on idle land would have eventually allowed the community to overcome 'squatter' status.

Conflict erupted. The plantation owners were not willing for the disputed 108 hectares to be converted into village land. Plantation workers, complete with police support, came to wreck the irrigation canals dug by the villagers. The community answered with mass civil disobedience: men, women, and even small children stood side-by-side along and in the irrigation works they had built until finally the plantation authorities gave up their effort.

1963: the Head of Government of the Simalungun District took an interest in the case of the disputed land. The dispute was settled by an official decree giving the 108 disputed hectares to the village.

1966: a reorganization of the government brought the six previously separate villages of Timbaan, Simpang Tiga, Jaya Pamonangan, Margosono, Karang Mulia, and Sidoarjo together into a single administrative village unit with the name Maligas Tongah.

1979: the Lombut river, the main source of water for the Lestari irrigation system, flooded badly and destroyed the simple concrete dam built by the community. As a result, each season the village had to make temporary repairs to the dam using bamboo and sandbags so that the irrigation system would function. This continued until 1984.

1984: the village made the decision to use the annual village development subsidy (BANDES) for the repair of the Lombut dam. With additional financial contributions from the community and two weeks of contributed communal labor, the dam was completely repaired.

1985: the Public Works office donated a steel water gate to the system plus the assistance of dam supervisor.

1986: Bina Swadaya, a national NGO, arrived in Maligas Tongah to work with the Maligas Tongah Water Users Association. The Lestari WUA was also included in the training so that their organization could also benefit from Bina Swadaya inputs.

#### The LESTARI Irrigation System.

The physical infrastructure of the Lestari system includes:

1. One concrete intake dam
2. A 1m x 1m steel water gate

3. A 3000 m primary canal
5. 4 secondary canals totalling 1800 m
6. 60 hectares of irrigated rice fields

The actual intake volume of the system has never been precisely measured, but farmers know that for the first planting season there will be sufficient water for all 60 hectares. For the dry season planting, however, the land that receives irrigation must be rationed (usually on a yearly rotation). In other words, land not receiving water currently will be planted with corn and other crops. The following year this land will be returned to irrigated rice cultivation.

Most farmer landholding are small. The 120 farmers in the area average only 5-12 *rante* each (1 ha = 25 *rante*). However, even though the land holdings are small and the water supply barely adequate; due to strong organization and full use of all resources harvest yields are usually good. There have been almost no incidents of water distribution problems or disagreements.

Like most other WUA, Lestari, even though it had been in existence since 1954, only became an 'official registered' group in 1975. The activities of the Lestari WUA include communal labor to clear and clean canals, development of water distribution schedules and management, and the collection of contributions for system and WUA maintenance. The key difference between Lestari and many other WUA is the fact that all of these activities run well without any push from the outside. For example, Lestari set a contribution policy of one *bilik* (a 20 liter can) of rice for each 6 *rante* receiving irrigation. These fees are collected by two *ulu-ulu* (informal leaders/WUA managers) selected by the WUA. The collections are used to pay a small honorarium to the

*ulu-ulu* as well as to cover WUA needs for system maintenance or for unexpected expenses, as when the government demanded an 'obligatory contribution' from all farmers to be sent to the Ethiopian famine area.

#### Community Participation in System Development, Management, and Maintenance

In the case of Lestari, the participation of the community is full and complete from initial planning, through construction, to the institutionalization of functions for management and maintenance. The WUA Lestari is also self-reliant in that it does not depend on outside resources or assistance for survival. Perhaps this solidarity comes from the fact that the village is not well-endowed, and hence the community shares strong common needs. The WUA Lestari is also strong because it has a history of group work and group struggle dating back to their 'civil disobedience' campaign undertaken to protect their land and their irrigation system. These events are often used as reference points by the group when they meet to discuss distribution management, collection of fees, and water rotation schedules.

The strength of the group is also reflected in the size of their internal contributions to the development and management of the system versus outside assistance. This is not to say that the BANDES funds used to repair the dam or the steel water gate contributed by Public Works were not important and valuable. However, if these contributions are weighed against that amount of time and effort and resources that the community itself has contributed, they become relatively small.

#### Role of the CO in developing the Lestari WUA

No CO was ever officially assigned to assist the Lestari WUA. However, beginning in April 1986 the Project Benefit Monitoring and

Evaluation Unit of the Simalungun Irrigation project hired Bina Swadaya to provide assistance to the Maligas Tengah irrigation system as part of a broader program. The goal of the program was to prepare WUA in the project area so that they could take-over irrigation systems developed under the project and provide continued maintenance and management. The village head of Maligas Tengah invited the Lestari WUA to participate in the activities sponsored by Bina Swadaya so that they would not "fall behind" other WUA in the area.

The Bina Swadaya CO was quite successful in helping a number of groups in the area develop their organizational capacity. However, in the case of the Lestari WUA not much 'before-after' difference can be seen. This is not due to the fact that assistance was not solid, but more due to the fact that the Lestari WUA was strong organizationally even before the CO arrived. In fact, the development of written administration procedures and basic budgets which formed an important part of organizational development activities for other groups was not seen as needed by the WUA Lestari since it already had its own systems that performed well (re: contribution system, water management/distribution system, etc.).

### Sustainability

In sum, the WUA Lestari has long reached a state of 'sustainability' and has passed the test of time along with numerous challenges. It emerged from collective needs, created its own structures, made its own decisions, and mobilized its own resources. Outside contributions were never so large as to endanger the autonomy of the Lestari WUA, and were always outweighed by internally mobilized resources. The technologies used in the system are simple and

practical, and hence totally under the control of the community and independent of outside technical assistance. Here perhaps can be seen a direct relationship between sustainability and the planning and development of the Lestari system itself. The Lestari WUA began in control of planning, and remains so.

### Operationalizing Community Participation

Participation in the true sense of community control has been the driving force behind WUA Lestari since its inception. Participation in the form of joint need analysis, group decision making, collective labor, and collective management are apparent from the very beginning. If examined closely, there are perhaps a few key factors supporting this model of full participation:

1. Common felt-needs: the village was poor (shared poverty) and needed to open more land with better water supply.
2. Shared History: besides poverty, the villages possessed a shared group history both in terms of local events and due to the fact that most of them originally migrated to the area a plantation workers.
3. Outside threats: real or perceived outside threats (in this case the plantation estate) made community solidarity necessary for survival
5. Agricultural experience: the members of Lestari share backgrounds as rice cultivators from Java, hence the technology they employed was nothing new or difficult to them
6. Little outside intervention: perhaps because the system is so small, no outside agency intervened at any point in the development and management of the system. What 'interference' there was was usually supportive and not 'cooptive'; i.e. a Decree granting landrights from the District Head, contributions from the village development fund, the water gate from Public works.

### Impacts of Participation on the Broad Community

The success of the WUA Lestari received the admiration of other neighboring groups. Unfortunately, this admiration was seldom coupled

with emulation. Perhaps the 'Lestari example' did not spread quickly to neighboring villages due to the fact that the neighboring areas were relatively well-off in comparison to Lestari in terms of water, and landholdings. These other areas could easily extend their land under cultivation, whereas Lestari's lack of land forced moves toward intensification.

Some direct impacts are noticeable, however, including the fact that some of the institutional procedures and mechanisms developed by the Lestari WUA have been adapted directly by other groups. For example, the system of collecting contributions in rice in proportion to the amount of land under cultivation, the method for collection of contributions by the *ulu-ulu*.

#### Efficiency and Effectiveness

This is a difficult area to handle without at least some reference to relative investment in monetary terms. One overly simple, but indicative measure is the cost effectiveness of investment, re: capital investment per hectare of rice field irrigated. Even a crude estimate of a particular activity, the rehabilitation of the primary dam in 1984, gives us some idea. The figure of rp.122.500, per hectare for system rehabilitation is extremely low in comparison with other systems.

BANGDES funds	rp. 950.000
100 mm labor	rp.4.800.000
Water gate	rp.1.000.000
Tools	rp. 600.000
Total	rp.7.350.000,

Just over 7 million rupiah (US\$4000), mostly in the form of in-kind labor costs, for the rehabilitation of a 60 hectare irrigation system.

Conclusions and Analysis  
for all four sub-cases

Technical Results

On the technical level, this program in *Policy Oriented Action Research* yielded results on several levels:

1. The Policy Level: Results of this study were utilized immediately within national and regional meetings concerning the development of policies for the Third Sector Loan in Irrigation Development. This represented a consolidation of some eight years of policy and operational development.
2. The Operational Level: Through this study input from communities was utilized in proposing operational designs for future programs. The proposed *roles of NGO's* was also better defined within the context of future programs. Methods used at the community level have also been taken as direct applicable within future programs; i.e. using community self-surveys as a replacement for outside initiated 'Agro-Industrial Profiles'.
3. Community Level: In the two communities where a cycle of participatory techniques was applied the farmers' groups and local community were able to resolve a number of existing problems within their own organizations as well as provide input to local and national authorities concerning the overall program.

A complete description of the policy and implementational recommendations flowing from the study is contained in Appendix II.

Analysis of Policy Oriented Action Research

This example makes a strong case for the use of Action Research interventions that are multi-objective and multi-level.

Replacement of Traditional Research Approaches: previous to this effort the Directorate of Irrigation and supporting agencies had been using quantitative 'Agro-Institutional Profiles' administered by minimally

trained outside surveyors for community level research. The results of 'profiling' tended to be abstract and irrelevant. Survey results proved to be of little use to planners, policy makers, or operational staff, let alone for the local community.

Action Research approaches employing participatory techniques were previously rejected a priori on the basis that such methods were difficult and time consuming. As this study has shown, Action Research methods can be not only time effective, but capable of producing highly relevant information in very communicable form.

The application of Action Research in this instance was especially appropriate since the entire program deals with improving beneficiary participation. There is no excuse for using alienating research methods within 'participatory' programs.

NGO - Government Relations: NGO's in Indonesia have a desire to directly affect government policy, but also fear being coopted and absorbed. NGO's do not have the resource base for large scale implementation, but through Action Research programs operated on a limited scale within large government institutions they can solid impact. Programs such as the one described in this case are particularly appropriate areas for NGO work in that direct community work is involved. NGO mobility allows them to serve as a bridge between local communities and national policy makers, communicating grassroots experience 'from the bottom-up'.

Nonformal, Participatory Techniques: the Action Research model provides a logically sequenced framework for the application of many methods and techniques originating within nonformal education. Using such techniques within Action Research gives these methods additional



power due to the strengthened 'knowledge generation and dissemination' component. Learnings generated in the village are utilized at higher levels to influence overall systems and policy.

Documentation: in Policy Oriented Action Research documentation can be generated on several levels in different manners. The actual communities produced photonovellas and system maps that remain in the village as a joint product. Such outputs are of use for future local initiative, and give the village groups 'information leverage' vis-a-vis outside irrigation officials. Reports in other forms were easily generated by the research team on the basis of village activities for policy level audiences. However, the photonovellas produced at the village proved to be the most powerful policy shaping tool: the Director of Irrigation in Jakarta has previously disregarded reports of field level problems such as flooded cemeteries, but he could not ignore the photographic and descriptive evidence produced by beneficiary communities.

#### Cautions

This study proved highly successful in 'giving a voice to the people' and shaping future irrigation sector policy. Certain cautions, however, must be taken into account when undertaking this type of research.

Timing: This study was undertaken just as policies for the next five year development plan for the sector were being discussed; and coincided with the development of technical sections of the Third Sector Loan program.

Official Support and Research Independence: at no time was an member of the team put under any pressure from any interested party(funder, government agency, NGO's, community) during the course of this study. Full access to documentation, personnel, and fieldsites was always provided, and few signs of defensiveness were evident upon presentation of the report to these parties.

Experienced Researchers: all members of the research team were thoroughly experienced with participatory Action Research techniques and had already been involved in similar programs. This made it possible for the team to quickly adapt methods and approaches at the field level despite constraints in terms of time and fieldsite accessability. All team members had spent considerable time in village programs prior to undertaking this program.

Commitment to Utilization: before the study was initiated vehicles for output utilization were already defined including national and regional workshops, informal discussions between funders and government decision makers, and even a forum for presentation at the Asia Regional level.

Factor X: personal relationships with key figures involved in policy decisions also played a role. While this was not consciously planned, it made sure that the study was taken seriously. One member of the team was a family friend of the Director General of Water Resource Development and hence could present the report informally to him. Another team member had gone to school in the USA with the National Development Planning Board person in charge of Irrigation Sector activities. All team members had worked with the major NGO's involved. The team leader was associated with a prominent national

consulting firm. These associations with a range of 'key players' aided team independence and reduced the possibility of any single agency pressuring for specific outputs.

## CHAPTER VII

### CASE II RESEARCHERS FROM THE VILLAGE: THE EVOLUTION OF COMMUNITY BASED ACTION RESEARCH PROGRAMS IN KAJEN, CENTRAL JAVA

This case in many ways represents an ideal example of Action Research, and as such answers questions concerning the feasibility, practicality, and sustainability of participatory Action Research programs undertaken with poor rural populations. In doing so, this program has moved toward the more purist definitions of Participatory Action Research (Tandon, Hall, Mustafa, Kassam, et al) abundant in the literature. However, the literature in general is hard pressed to illustrate solid cases in the field without resorting to the retro-fitting of labels.

Important operational questions addressed through the case include:

1. What is the relationship between Action Research and Community development? Specifically, how does Action Research build sustainable local institutions at the community level?
2. What factors promote or constrain the application of Action Research at the field level?
3. What is the role of NGO's in working with community organizations? How can they support local initiatives?
4. What type of documentation is generated by Action Research at various operational levels, for whom and by whom?

### Case Setting

The evolution of the 'Researchers from the Village' program is inseparable from its context within a *pesantren* (1) (Islamic community school) setting. The village of Kajen is located in Margoyoso sub-district along the northern coast of Central Java approximately 120 kilometers distant from the provincial capital of Semarang. Kajen, along with other villages in the area, is marked by high population density of over six thousand persons per square kilometer, low levels of formal education, and more than half of the homes categorized as semi-permanent (woven bamboo walls and grass roofs). The program described in this case originated in Kajen and has spread to fifteen neighboring villages in the sub-district and areas outside of Kajen as well.

What has always identified Kajen is its concentration of *Pesantren*: fourteen *pesantren* with over a thousand resident students are located in the village of Kajen alone. Long the north coast area Kajen is known as 'the *pesantren* village'.

The origins of *pesantren* in Kajen trace back to Syekh Ahmad Mutamakkin, an eighteenth century Islamic teacher who organized communities and spread Islam to counter the forces of the interior kingdom of the Javanese Sultan Amangkurat I; remembered as one of the most oppressive and despotic of all Javanese monarchs. Historically, the northern coastal region of Central Java was the entry point for Islam in Indonesia; hence differentiating it sharply from the interior Hindu-

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(1) *Pesantren* resemble 'schools without walls' described by Ivan Illich. Illich affirmed this during a visit to the Central Javanese *Pesantren Pabelan* in 1974. Even informed observers are hard pressed to designate where the *pesantren* ends and the community begins in places such as Kajen; if indeed there is distinction.

Buddhist kingdoms. This split between religious 'santri' coastal communities and interior 'abangan' or syncretist communities remains operant to this day. (Dhofier, 1982)

During the late nineteenth and early twentieth centuries the Dutch furthered consolidation of their control by allowing elite classes of Javanese opportunities for education within the Dutch system. Most of the students were drawn from the traditional Javanese elite and were destined to become part of the Dutch controlled colonial administration mechanism.

In reaction to this, *pesantren* began to evolve as a form of alternative, indigenous educational system at odds with passifying aims of the colonial education system. Many of the pre-revolutionary period peasant organizations drew their strength from the networks of *pesantren* strung along Java's North Coast (Kartodirdjo, 1966).

Post revolution, *pesantren* continued to form the basis of religio-political organizations such as *NU (Nahdatul Ulama)* (2). The modern *pesantren* movement initiated during the 1970's reflects a frustration on the part of Islamic organizations and 1966 generation student leaders over the marginalization of their role within the New Order Government of Suharto as the military became the ascendant partner of the triumverate(3). *Kyai Sahal Mahfudz* (4), the leader of *Maslakul Huda*

(2) Nahdatul Ulama "Rising Islamic Scholars", is the largest Islamic social organization in the country. In the 1957 national elections NU polled over 35% of the vote. In 1971 the party was merged by the New Order Government with other predominantly Islamic groups to form the United Development Party. In 1984 the organization was 'de-politicized', and after much discussion accepted *Panca Sila*, the national ideology, as its sole philosophy.

(3) According to Dr. Dorodjatun Kuntorojakti, the move to establish a number of NGO's such as LP3ES led by a combination of ex-student and Islamic activists during the early 1970's was a direct reaction to this marginalization

*Pesantren* in Kajen is a key NU figure, chairing the Provincial NU Board while also holding a position on the national governing board of the organization.

In many rural areas, particularly the north coast of Java, East Java, Banten in West Java, Madura, and the Province of Aceh in North Sumatera; *pesantren* are powerful local traditional institutions (Rahardjo, 1974) playing strong educational, social, religious, and quasi-political roles: sometimes in competition with the 'formal' government structure.

#### Evolution of the Current Program

In 1976 LP3ES (The Institute for Social and Economic Research, Information, and Education) (5) began a program aimed at 'revitalizing' rural *pesantren* and assisting them to become effective community development institutions. In part this program was to prevent further marginalization of *pesantren* as their educational activities came under increasing pressure from the national educational system; hence eroding one key area of *pesantren* activity. (Billah, 1985; Haysim, 1985).

process. These groups targeted rural *pesantren* for rural development programs with the secondary aim of establishing mass followings at the village level during the 'floating mass' period.

(4) The term *Kyai* designates a traditional Islamic leadership title. A *Kyai* is a combination traditional charismatic leader/Islamic scholar. To an extent the position is hereditary in that many *Kyai* can trace ancestry back as far as the *Wali Songo* (the nine teachers) who brought Islam to Indonesia. Most influential *pesantren* are led by a *Kyai*. Twenty-two *Kyai* reside in Kajen, a highly unusual concentration.

(5) LP3ES is a large national NGO founded in 1971 by a combination of student and Islamic activists with the goal of promoting social welfare and organizing/educating the youth of the nation. LP3ES currently has a staff of approximately 120 and is active in the areas of publishing, social research, irrigation, community development, urban ghetto improvement, and small scale enterprise development.

Training activities for 'community development agents' began in 1977; and involved participants from twelve key *pesantren* including Maslakul Huda, Kajen (LP3ES, 1987). In 1980 the Maslakul Huda *Biro Pendidikan dan Pengembangan Masyarakat* (BPPM) (Bureau for Community Education and Development) was established. This bureau is a separate entity from the *pesantren*, although the Maslakul Huda Kyai remains chairman of the organization.

Programs undertaken in the early 1980's included efforts in the area of nonformal education, village technology development (Thorburn, 1982), primary health care, and environmental sanitation. Twenty-two fieldworkers drawn from the *pesantren* and from the local community served as volunteer extension workers, while LP3ES provided inputs in the form of training, finance, and management through the assignment of two LP3ES staff members to the bureau. (Mudatsir, 1987).

While effective, LP3ES and the BPPM were concerned that their programs were still 'top-down'; and despite participatory rhetoric many programs were bureau initiated with the local community in the role of recipient and/or passive partner. In 1983 a series of meetings were held at the Maslakul Huda BPPM concerning the possibility of developing an improved approach strategy more in line with espoused values and principles.

#### The 'Researchers from the Village' Program

The meetings held by the Bureau discussed the potential of Action Research approaches and after several days developed a proposal for a training program geared to involve sixteen villages in the Margoyoso



sub-district.(6) From initiation through evaluation, the new program was designed to make true community participation a key agenda.

Additionally, the research component of the program was from the outset designed to play the lead operational role in the program.

#### The Action Research Training Program

Early one evening in the village of Kajen, situated between the dry hills to the south and the mudflats of the North Java coast, a young woman wearing a *jilbab* (Islamic head covering) sits with a group of illiterate peasant women. They draw squares or circles, the size of which indicates their perceptions of what their standing is relative to other villagers. The conversation is lively as they dig deeper into their social conditions and problems: *'Why are we unable to send our children to school? Why are some people poor and others rich? Is it fate? Is it laziness? What does our religion have to say about this?'*

(Dilts and Hadi Mulyo, 1986, p.276)

At subsequent meetings folk sayings, government slogans, and Koranic passages will be used to start discussion. Groups of villagers will analyze the meaning and relevance of the content of these 'messages' in terms of their own life experiences. Using projective techniques involving drawings and posters plus questions (*What do your neighbors complain about most?*) a composite picture of social strata and social interaction patterns will be developed and discussed.

The young woman described here is a 'researcher from the village'. She is a permanent resident of the village who has been trained as an 'Action Researcher'. Fifty-three persons from thirteen villages participated in the four month training program.

(6) This series of meetings was attended by LP3ES staff and the author of this case. The resultant proposal was submitted to PACT for funding in early 1984.

### Training Program Goals

The goal of the training program was to generate grassroots social transformation through the organization and education of groups within each village. The target was to address socio-economic attitudes, systems, and structures that create and sustain impoverishment and oppression at the community level. The 55 persons receiving training were 'professionals' according to village standards, i.e. 'professionals' at staying alive. Most of the 27 women and 28 men ranged in age from 20 to 30 years. Average educational level was junior high school. The trainees were drawn from the ranks of craftsmen, teachers, small farmers, traders, and staff and students from area pesantren.

### The Training System

As had been found in other programs, training is too often a one shot affair taking place over a limited period of time in a specific location. From the outset the training of 'researchers from the village' was described as a one year program with the following stages:

Recruitment and selection: during this stage program initiators went from neighborhood to neighborhood discussing the goals of the program and the opportunities for participation in the program. Participants nominated by the community were further screened with an emphasis on choosing persons with some background in community work.

One-Month Training Workshop: this workshop involved all trainees in an intensive, residential training conducted by members of the Bureau with the assistance of LP3ES staff.

Integrated Fieldwork/Action Research for four months: this section of follow-up training included weekly meetings with workshop facilitators and individual trainees as they 're-integrated' within their

communities and began to apply what they had learned from the workshop in their day to day lives. Each month all trainees were gathered for a two day session to review problems and develop alternative solutions to difficulties faced. An intensive three month period was utilized for the research program. Each week a set of research activities was undertaken and then reviewed both with village groups and with program facilitators.

Planning Workshops: at the end of the research period a planning workshop was held in each of the 13 villages involved in the program. During this workshop the general community would review and discuss research results and begin to formulate action plans.

Action Programs: using group planning techniques villages and constituent groups developed discrete action programs to be undertaken in the following eight months. Trainees worked directly with these programs and received supervisory support from Bureau staff.

Joint Evaluation Workshops: this workshop marked the end of the first 'cycle' of Action Research. Results of the preceding twelve months were reviewed by the entire village; problems were analyzed; and needs for further training or support were delineated. These workshops emphasized careful documentation of results including joint deliberations on levels of participation and program impact. Each trainee worked to write a detailed report of program progress and process over the course of the year. At these workshops initial plans for the next cycle were introduced for discussion by community groups.

#### The Training Approach

The Bureau described its training approach and methodology as adult nonformal education, or andragogy. The emphasis was upon using

participants' life experiences and knowledge to identify and analyze situations, problems, and conditions. This general approach embodies respect for the learner as an adult who must go through his or her own process of growth and change. The methodologies to support this approach were drawn from 'participatory training' where participants are from the first day involved in determining the goals of the course via the 'learning contract' process. The training also made use of many human relations training exercises called 'structured experiences'. A number of these techniques were modified and adapted for direct use with communities.

Several levels of personal and social development were addressed. 'Self-awareness' exercises were used to heighten participant sensitivity to personal history, attitudes, and assumptions. Group interaction techniques were heavily utilized to improve participant skills in working with other persons and groups. These techniques included projective techniques drawn from Friere's methodology as well as a range of simple methods utilized widely in Indonesia for nonformal education (discussion starters, flexi-flans, photo-novellas,).

The one month training program included fieldwork so that participants, after simulating techniques in class, could work with actual community groups to improve their skills. Research was emphasized through training in the process of group organization and working directly with community groups to gather and analyze local information, conditions, and problems. Important elements of this included 'mapping' community social strata and social relationship patterns. In these processes the trainees would work with community groups to develop

detailed descriptions of existing social situations and conditions; e.g. landholdings, money-lending systems, and even gambling syndicates!

Evaluation was conducted through the use of daily review and reflection sessions, personal counselling, written tests, and group evaluation meetings where the entire group would chart progress toward the established 'learning contract' plus determine changes that needed to be made in the curriculum or training program plan.

Notes on the formal training program:

1. *Methodology:* Participants at first had difficulty with the methodology, since their only previous experience with 'education' was wrote learning in primary school and various types of extension lectures received from government agencies. The first week of the training was marked by 'dizzy spells', personal confusion, and demands that the training team use more traditional approaches. These symptoms disappeared by the second week as the trainees began to recognize the congruity between the purpose of training and the methods utilized. Through discussion and exercices both in-class and in the community participants began to realize the close relationship between goals (empowerment), values (democracy, respect for others), and actual methodologies (participation and dialogue).
2. *Community Organization:* as trainees undertook fieldwork both during the formal training and during the subsequent four months in the community; they also initiated actual group organization activities via 'research'. They found a surprisingly positive response from the community and by the end of the four months a number of solid community groups had been formed (approximately 30).
3. *Research First:* although the participants were introduced to participatory planning techniques during their fieldwork, no planning activities were undertaken during the four months dedicated to research. This contrasts with most 'community development' programs which try to hustle through the research or needs assessment part of the program as fast as possible in order to get down to 'action'.
3. *No Drop-outs:* possibly due to the selection process and due to the organized fieldwork system consisting of weekly counselling and monthly group meetings, there were no drop-outs. If anything, by the end of the four months there were quite a few community members asking for similar 'training'. This contrasts greatly with most short duration village cadre training where as often as not participants develop expectations of payment or 'elite'

roles. No such expectations arose from this group; other than demands that counselling support and meeting facilitation from the Bureau be delivered on time.

4. *Equal Number of Men and Women:* based on Bureau experience in other programs where women were often the most effective fieldworkers, an effort was made to involve an equal number of men and women within this program. This was seen as especially important due to the fact that a large segment of the poor in the village are women. Additionally, this particular area of Java has a tradition of women leaders, which became suppressed only during Dutch colonial rule.
5. *Research documentation:* fieldworkers and community groups produced detailed descriptions of their villages including social differentiation and prioritized lists of problem areas. Analysis was taken further through general village meetings. One of the reports produced in Ngemplak village has been excerpted in national newspapers and magazines highlighting the jobs vs. pollution dilemma caused by tapioca production.
6. *Revitalizing Institutions:* existing institutions, both formal and informal, were surveyed and catalogued with a hope of either revitalizing, re-orienting, or replacing ineffective structures.

#### Program Results

The program undertaken in Kajen has passed the test of time. As of mid-1988 there are 170 community groups actively undertaking research and program activities. Some 4000 families are involved in this program across the 15 villages. The Bureau lists 21 different types of activities being undertaken including primary health care, environmental sanitation, literacy programs, appropriate technology development, small agriculture improvement, animal husbandry, plus a range of cooperative income generation activities.

The program has *evolved* steadily since 1984, with an increasing number of groups and activities started each year:

1984:	30 groups
1986:	70 groups
1987:	120 groups
1988:	170 groups

It should also be noted here that 'groups' refer to actual community organizations with established leadership, procedures, financial systems, rules, and programs. Membership in a group is not automatic, and all groups must receive training in 'research', basic management, and basic financial management from either a bureau fieldworker or trained village cadre. For example, the primary health care system in Kajen is run via a system called *Dana Sehat*, a health fund revolving around trained cadre who manage a health system covering ninety percent of the village population. All funding for the program comes from community participant contributions run as a joint fund for medicine purchase and the coverage of outside care. Cadre received training from the bureau in community organization, financial management, and basic health and nutrition. Cadre ran the extension programs with communities.

The groups around the Kajen area have also succeeded in the difficult area of *income generation* through the establishment of savings and loan groups, cooperatives, and community small enterprise. The income generation activities in fourteen villages as of late 1987 can be seen in Table VII-1 at the end of this chapter.

These programs have displaced *retenirs*(loan sharks) while providing sources of low-cost credit where none existed previously. Programs run by the government through national banks were previously difficult to access and for the most part out of reach of poor villagers possessing no fixed capital as collateral. While the totals might

not seem great, *any* accumulation of capital by poor villagers is an accomplishment, as anyone who has worked in this field can attest.

*Local institutions* have been revitalized or replaced. In several villages the cadre trained in the program have taken over the *LKMD* (village government social development board). This has enabled cadre to channel resources to poor segments of the community and develop programs benefiting the poor. Argumentation based upon detailed 'village research' even allows them to dictate to outside agencies the priorities of the village.

*Empowerment* through the establishment of networks of groups across village boundaries and the take-over of existing institutions, the community groups have gained power unknown before. In several instances the groups have been able either to reject or re-direct government top-down programs by stating frankly that either the program goes through their organizations, or else it will not work. Hence government funds for primary health care and housing rehabilitation have been channeled through the Bureau and its network rather than through government village heads. In another case the local Health Department official refused to assist the 'village health insurance scheme' (*dana sehat*) established by cadre trained in the program. This Doctor and his assistants who had refused to honor the health credit certificates issued by the Bureau program have now been replaced after pressure was applied at the sub-district and district level. Had they not capitulated, all Health Department activities in the area would have faced 'massive non-compliance'.

*Role Transfer:* one of the most obvious results of the process has been the transfer of roles from the Bureau, to the village cadre, to the



community groups. As of 1984 most programs were organized, initiated, and supervised by staff from the Bureau, often with assistance from LP3ES. By 1985 the village cadre were organizing most activities with only technical inputs from the Bureau (and little involvement from LP3ES). At present, the community groups have taken over the initiative, with village cadre playing only a support training role for an ever increasing number of groups and activities. At present the cadre perform the function of mobilizing outside resources and networks to assist local groups in specific programs. Through this cadre networking there has been a large transfer of programs horizontally across villages. This horizontal networking has also allowed for the the pooling of resources in such areas as income generation where capital is a problem.

Sustained Research: in many programs the research component of Action Research is lost after the first cycle. In Kajen this has not been the case. Research has been institutionalized as a mandatory part of all programs developed. In August 1988, for example, a community group in the village of Pancur organized 600 families to undertake a drinking water project. The project was begun through the 'village research' technique of the photo-novella. Along with developing a photo-novella concerning water problems and potentials, the group presented a slide show that was shown in three villages and witnessed by several thousand people (7). Community groups understand the research process and its use in mobilizing the community to identify and analyze complex situations.

(7) Based on report from Mansour Fakh and Roem Topatimasang of P3M during their monitoring visit to Kajen, August 18-19, 1988.

*Horizontal Dissemination:* besides the spread of activities in the villages around Kajen, cadre and community members have organized training outside of Kajen at the request of local government. In one instance the Sub-District Government head of Margoyoso requested cadre and the bureau to provide training for the remaining village heads in the sub-district: villagers training the government. Through other networks such as LP3ES and P3M Kajen cadre have visited a range of programs in Central, East, and West Java; often serving as resource persons or trainers. Through these networking visits they have also brought back to Kajen new program ideas, including 'village journalism' which has led to the establishment of local newsletters done by and for community groups.

*Critical Thinking and Political Power:* The voice of the groups in Kajen are being noted outside also. After a recent riot in Jakarta (1986), the commander in chief of the military, General L.B.Murdani made a personal visit to Kajen and Pesantren Maslakul Huda in order to smooth feelings with grassroots Islamic communities. Upon arrival he was given a lecture by Kyai Sahal concerning nonformal education and the role of the government as 'facilitator only'. The combination of strong Islamic networks and solid community bases makes the Kajen area a force to reckoned with even in national politics. Government officials visiting the villages in the area are often shocked at the lack of kow-towing evidenced by the local community: at one meeting in July 1986 the local sub-district head had to wave his pistol to get a group of community cadre to stop criticizing and laughing at his proposed village development programs. He then asked their help to re-define the program. In one project proposal submitted to the Asia Foundation in

1985, in answer to the question 'Will there be any activities undertaken to increase critical thinking abilities within the community?', the head of the Bureau answered: "No, they are critical enough!"

*Increased Complexity:* the programs undertaken by the groups in the communities have increased in complexity over time. Early activities were limited to basic services such as literacy, primary health care, savings and loan associations revolving around small groups with focused interests. Current activities, while still including small scale programs, have moved toward programs which require horizontal linkages, large scale resource mobilization, solid book keeping and financial management, and the involvement of a number of groups or even villages as is the case in the current two village water supply development program.

#### Case Analysis

In the following paragraphs the *Research Continuum* (Table VII-2 at the end of this chapter) will be referred to in order to illuminate several key issues in Action Research in light of experience in Kajen. If the current process in Kajen is plotted on the *Research Continuum* it becomes clear that this program is a solid example of one extreme of the continuum. What is important to remember here is that this profile emerged over time: if activities were plotted on this chart in 1984 the role of outsiders would have been much stronger. Only over time has the community succeeded in taking over and institutionalizing programs and approaches.

*Objectives:* all program objectives are now established at the community level. Even community group members can articulate the goals of the program: 'to improve welfare and change the structure and culture of the village to be more supportive to the needs of the poor'.

*Interests*

*Served:* While results from Kajen are being disseminated to other sites, and while they are beginning to gain a voice in regional and national affairs; the programs initiated first and foremost serve local needs as defined by the beneficiaries themselves.

*Researchers:* The researchers are the villagers themselves. They are in control of the methods and produce the results.

*Community:* Community members control all processes

*Methods:* The methods used are concrete, open to all members of the community, controlled by the community, and thoroughly participatory.

*Data:* Data generated by the research is in a form accessible to all members of the community. Community members are trained in both developing and interpreting data generated.

*Validation:* Validity is determined by utility. Data generated is used to form the basis for concrete action programs; and data generated during action processes is used to further refine and modify future practice.

*Products:* Research products are directly utilized within community programs. Further, outputs from the research process are used to gain leverage with other institutions at the local, regional, and national level. Outputs are shared with community groups through access to *pesantren* networks throughout the country.

*Consumers:* The primary consumers of research products are the villagers themselves. This process is institutionalized via meeting forums of community groups, villages, and cross-village forums.

*Dissemination:* The most powerful dissemination within this program has been horizontal: to neighboring communities and villages and through the *pesantren* network to a wide variety of organizations.

### Sustainability

By the definition of sustainability established in this study, the Kajen program is fully sustainable, i.e. almost five years after the 'project' was completed, benefits continue to flow to the community. In fact, the scope of the program has grown considerably during the last five years while the role of outside resources has been reduced.

### Participation

In terms of participation, this is a clear case of the establishment of *control*. Village communities have control of their own programs and utilize their own resources. Community members have established decision making systems not subject to outside intervention or control. Community groups have developed their own resource bases and capital outside the control of government or outside agencies. Community groups have reduced their dependence on key persons, village elite, outside groups, and even local village cadre. Local groups have gained leverage with local government bodies and in some instances have coopted these bodies for their own purposes. Local groups are linked horizontally to a range of other groups and programs. Local group networks have formed coalitions with outside networks to press for certain issues; re: the tapioca refining case made the national news and a group from Kajen presented their case before the national house of representatives.

This case example also puts to rest the dichotomized view of participation as something serving either *effectiveness* or *empowerment* (Bamberger, Shams, 1988). By any standard, the community development programs undertaken by community groups in Kajen have been effective. They have also been carefully documented both

quantitatively and qualitatively. Program success in this case cannot be separated from empowerment issues. In this case empowerment, sustainability, and participation become synonymous and inseparable.

#### NGO Role

In the case of Kajen, LP3ES and subsequently P3M have played 'ideal' NGO roles as facilitators and mobilizers of resources in response to community program needs. For the last few years the role of national and regional NGO's vis a vis the Kajen program has been to listen to needs coming from village groups and cadre and to design inputs to assist these groups in the development of their own internal institutional capacity. The types of activities that LP3ES and P3M have provided include the following:

1. *Specialized Workshops:* workshops in the Kajen area have been developed in implemented on such topics as *evaluation and documentation, small scale business management, cooperative organization, financial management, and information and communications strategies and techniques.*
2. *Provision of Resources/Resource Persons:* in general, as community capabilities have evolved, outside organizations have fallen into the role of resource mobilizer. LP3ES and P3M have provided resource persons for specific methods and workshops while working to develop access to credit and markets as needed by ever growing internal production capacity.
3. *Networking:* LP3ES and P3M have provided access to a range of outside agencies and programs. Personnel from Kajen have visited many other programs and attended workshops as both participant and as resource person/trainer.
4. *Dissemination/Documentation:* LP3ES and P3M have developed informational activities including publication of Kajen program documentation in journals and magazines. In addition to this they have helped to develop internal Kajen capabilities in horizontal dissemination by training local people in 'village journalism'. *Village journalism* activities have been started with community groups writing and distributing their own local papers. On a higher level, P3M and LP3ES each publish a monthly journal concerning the operations of programs at the community level. Kajen has often in these publications.

Another issue has arisen due to the very success of this project. Arief Mutadsir (Mudatsir, 1987) has brought into question some of the basic assumptions of the program. In his view, the emphasis on *gotong-royong* (mutual assistance), while making this a model project and keeping to a minimum outright conflict with local government, might have doomed this program to a succession of piece-meal improvements in community welfare. He sees the changes in Kajen to be a 'cultural revolution', i.e. there is strong evidence of real change in community attitudes and capabilities. However, no large scale social revolution has occurred either in Kajen or in surrounding villages. Again, we are back to the basic political question: What is the goal of Action Research? Despite its success, some might still view the Kajen experience as unimportant on a national scale despite increasing evidence of horizontal spread.

#### Possible Replication

Similar programs are being initiated in other areas, mostly through the *pesantren* network. From a review of the Kajen program some key components that will determine replicability of this kind of Action Research program include:

1. *Local Leadership*: Kajen is a unique community, a *pesantren* village. Kyai Sahal is a national figure, but continues to live modestly in the village, hence providing a strong role model for community activists.
2. *Pesantren style*: this program might not even be directly replicable in other *pesantren*. The *pesantren* in Kajen form a loose federation of a number of institutions and are not dominated by any one group or individual, even Kyai Sahal. None of the *pesantren* in Kajen are large either in terms of number of students or in terms of physical facilities. *Pesantren* in other areas have greater tendencies to personal and institutional *aggrandisement* as seen in the desire for large buildings, large numbers of students, and large amounts of political control over local affairs.

3. *Training Program Duration:* a key to this program seems to lie in the initial training. This training supplied sufficient resources over sufficient time directly at the village level. Many programs spend minimal amounts of time on training, especially on the research portion of Action Research, with the result that after the first training the research cycle is lost.
4. *Organization:* from the outset the training program evolved into a support network for program implementation. Built-in were numerous consultative mechanisms including weekly meetings with Bureau staff, monthly meetings between all village cadre, general meetings at the community level, and cross-village review and evaluation meetings. This focus on networks and processes eventually became institutionalized within the community and now serves as an ongoing mechanism for expansion of programs.
5. *Initial Mechanisms:* the Bureau based at Maslakul Huda provided a programmatic basis for the initiation of activities. In other words, an institution existed with basic experience in and commitment to community development. This experience allowed the Bureau staff to examine past programs and understand the relevance of Action Research in overcoming perceived shortcomings re: levels of community participation.
6. *Documentation and Management:* from the outset emphasis was placed upon the importance of thorough documentation of both process and outputs. The importance of this has been borne out again and again. At the community group level this process has given villagers leverage with government and outside organizations and has helped instill pride as they call themselves, 'researchers from the village'.

#### Summary

The Kajen experience is in many ways an 'exemplary story'. The bureau at Kajen had been undertaking community development activities for several years, but even at the local level these remained 'top-down'. Through the integration of Action Research approaches a *process* has been institutionalized at the community level that yields sustainable development and promotes local initiative. Perhaps this is the most important possible contribution of Action Research to community development. Organizations begin to break out of 'project' orientation



and begin to work with communities in order to build sustainable capabilities and mechanisms.

Kajen is unique historically, but it does not differ greatly from many poor communities in Central and East Java. This is borne out by the fact that the program is spreading horizontally from village to village with former trainees becoming the extension agents. In this sense, NGO's like P3M and LP3ES have done an excellent job of role transfer, minimizing dependence on outside resources and expertise. The Action Research process is partly responsible for this in that it assisted in building confidence and competence within the community.

Documentation efforts within Kajen programs have also played a role. Village researchers wrote out cases and descriptions of problems encountered. Further data was gathered, and actions planned. In addition to this, information from the village level has been used at higher levels to lobby for policy changes, such as in the case of the tapioca factories.

Finally, despite successes, it must be stated that this program did not occur overnight. Instead, it is a cumulative effort over a number of years with constant reflection and reformulation of approach. Again, Action Research frameworks strengthen this evolutionary process by institutionalizing reflection and evaluation processes within a continuous process cycle.

Table 7.1 A RESEARCH CONTINUUM: RESEARCHERS FROM THE VILLAGE. KAJEN

		<i>New Paradigm/AR/PAM</i>						
<i>Conventional</i>								
Centralizing, Social control, Domestication Assistencialism	3	2	1	OBJECTIVES	1	2	3	Creating Indigenous Knowledge, Empowerment, Self-reliance, Social Change
Central Controlling/predicting External	3	2	1	INTERESTS SERVED	1	2	3	Local Self-determined Internal
Professional, Paid, Remote, Expert, Source of Knowledge and Method	3	2	1	RESEARCHER	1	2	3	Lay, Voluntary, Community member, Facilitator
Passive Research Object, Object of observation, Human variable	3	2	1	COMMUNITY	1	2	3	Researcher, Actor, Active Subject
Abstract, Quantitative, Needs expert interpretation	3	2	1	METHOD	1	2	3	Praxis, Creative, Dialogical, Open to lay interpretation
Numerical, Abstract	3	2	1	DATA	1	2	3	Concrete, Verbal
Comparison to fixed reality, Quality of method	3	2	1	VALIDATION	1	2	3	Utility, Quality of Social change
Reports, Documents, Planning Inputs, Policy	3	2	1	PRODUCTS	1	2	3	Community Process, Praxis
Government, Management, External Planners	3	2	1	CONSUMERS	1	2	3	Producers are CONSUMERS
Banking, Selective, top-down, Edictal	3	2	1	DISSEMINATION	1	2	3	Dialogical, Horizontal, from inside out

Table 7.2 KAJEN INCOME GENERATION

Village	Activity	Members	Capital 1987	Mandatory Savings	Current Capital Voluntary Savings	Profit	Total
1. PORIJO	o UBSP (CICAWA )	40	120.155	8.000	4.325	10.250	142.730
	o UBSP (TAHLILAN/PA )	16	110.850	5.600	4.700	9.550	130.700
2. WATUROYO	o UBSP (BAROKAH )	28	468.950	4.350	6.800	18.000	498.100
	o UB (TERNAK KAMBING)	30	370.000	6.000	-	20.000	396.000
3. PANGKALAN	o UBSP (AL-INAYAH )	6	425.425	4.3000	-	15.500	445.225
	o UBSP (12 RT9/DESA )	404	2.484.760	80.050	110.460	300.900	3.421.395
4. SIDOHUKTI	o UBSP (RT 14 )	41	171.250	6.650	4.050	3.750	185.700
	o UBSP (RT 13 )	41	293.250	6.000	5.400	4.500	399.150
4. SIDOHUKTI	o UBSP (RTW 17 )	29	109.500	5.575	8.000	5.050	129.125
	o UBSP (PEDAGANG KECIL)	4	190.000	-	-	-	190.000
5. NGEPLAK KIDUL	o UBSP II (P. KECIL )	4	170.000	-	-	-	170.000
	o UBSP (SIDO ASIH )	35	298.050	6.090	6.090	4.550	313.190
6. PURWODADI	o UBSP (SINAU GEMI )	53	321.500	3.750	7.600	6.650	539.900
	o UB (RANDU )	9	144.500	-	-	-	144.500
7. CEBOLEK KIDUL	o UBSP (BAROKAH )	9	1.020.750	-	-	5.600	1.026.550
	o UBSP (YASINAN RTW2)	24	49.700	4.800	70.700	6.850	61.650
8. POERWOKERTO	o KOPERASI (GURU 1TB)	42	522.500	16.100	-	75.000	616.800
	o UBSP (MARGOTOHO )	46	276.225	4.100	-	9.075	209.400
9. SEMERAK	o UBSP (RT 3 )	24	179.300	2.075	-	7.600	188.975
	o UB (SAPRODI )	19	655.000	-	-	40.675	695.675
10. LANGENHARJO	o UBSP (MUSLIMAT )	70	507.800	90.800	-	142.850	701.450
	o UBSP (AL-HIKMAH )	15	316.125	3.000	-	40.400	559.525
11. BULUHMANIS KIDUL	o UBSP (SENIMAN )	10	206.000	20.000	4.500	30.500	261.000
	o UBSP (PKBI )	32	70.000	6.400	-	10.900	87.300
12. NGAWEN	o UP (LAS-MENGLAS)	7	650.000	15.000	-	250.750	915.750
	o UBSP (MARGOTOHO I )	43	521.325	8.000	8.800	90.600	628.725
13. KAJEN	o UBSP (MARGOTOHO II)	38	398.200	6.000	6.090	35.750	446.640
	o UBSP (RT IV/PA )	50	342.250	7.500	6.000	20.000	375.750
14. Panjur	o UBSP (RTW IV )	41	82.300	8.000	12.600	9.000	110.800
	o UBSP (SIDOMUNCUL )	27	914.000	4.350	15.050	153.400	1.886.800
15. TEGALARUM	o UBSP (RTW 2 )	65	40.600	10.450	-	2.600	53.550
	o KOPERASI (KARYA REMAJA)	236	976.050	105.300	1.754.130	1.820.090	4.556.570
15. TEGALARUM	o UBSP (MANAQIBAN )	24	280.000	12.800	-	3.000	125.800
	o UB (T. AYAM & UNGGAS)	30	650.000	-	-	-	650.000
15. TEGALARUM	o UBSP (PEDAGANG KECIL)	49	200.100	4.450	-	40.100	244.750
	o UB (T. KAMBING RT4)	23	232.103	8.600	-	40.700	381.400
15. TEGALARUM	o UB (T. KAMBING RT5)	21	210.000	8.200	-	30.600	248.800
	o UB (T. KAMBING RT3)	21	71.000	8.700	-	20.700	100.850
15. TEGALARUM	o UB (T. KAMBING RT2)	22	63.700	8.200	-	315.100	315.100
	o UB (PERLISTRIKAN)	125	1.791.000	48.000	-	125.575	1.645.579
15. TEGALARUM	o UB (KOPERASI )	5	325.000	-	-	27.000	184.000
	o UB (KONPEKSI )	8	130.000	3.200	-	5.500	145.600
15. TEGALARUM	o UBSP (T. KAMBING KAJOK)	22	126.400	4.450	-	20.000	163.000
	o UB (SAPRODI )	68	179.600	8.400	-	35.500	427.100
15. TEGALARUM	o UB (PERTANIAN )	11	-	-	-	109.000	109.000
		2.249	17.166.585	532.040	2.039.305	3.653.215	23.411.140

## CHAPTER VIII

### CASE III: FIELD-BASED TRAINING IN ACTION RESEARCH

Up until 1987 Action Research was spread through the Indonesian NGO community through an informal network of practitioners and via short workshops/seminars on the topic. The appearance of *Alternatif* also assisted in dissemination efforts.

This type of ad hoc dissemination raised problems: the main one being that the jargon of Action Research spread quickly since it was perceived as fashionable; while solid programs in the field remained few and far between.

By this time LPTP had begun to define its programs in terms of Action Research, and had held several workshops on the topic both internally and in collaboration with national and regional organizations. Despite these efforts, *definitional* and *operational* problems remained.

This case documents the efforts of *JARI* in concert with the local NGO LPTP to examine past experience, analyze potential approaches, resolve key Action Research issues, and try new methods and approaches directly in the field in order to yield a model plus requisite staff skills and materials for further promotion of Action Research both within LPTP and throughout *JARI*. Some of the operational questions addressed in this case include:

1. How is Action Research operationally defined within a specific organizational and programmatic context? What is the relationship between Action Research and community development?
2. What factors promote or constrain the application of Action Research approaches at the field level?

3. What must be considered when developing and implementing training programs in Action Research?

#### LPTP and Action Research

LPTP, the *Lembaga Pengembangan Teknologi Pedesaan* (The Institute for Village Technology Development) was founded in 1980 by a group of technical and education faculty students from the Universitas Negeri Sebelas Maret, Solo, Central Java. Most of the founders and key staff of LPTP came from the last round of student activism in Indonesia circa 1980 when uprisings concerning economic domination by power elites broke-out in Solo and Ujung Pandang. As a result, several LPTP officers received additional political education in local prisons for periods of between six months and two years.

The original focus of LPTP, probably due to the complement of a strong element of young engineers involved in forming the organization, was in the area of village technology. Most LPTP staff were originally drawn from students who had become more aware of the plight of the rural poor in Central Java via three to six month volunteer stints in the village with the University sponsored *Kuliah Kerja Nyata* (Student Service Scheme). This early focus, however, proved to be an entry point for more complex community development programs as LPTP became aware that mere technology, no matter how appropriate, was not of great assistance to rural communities facing very strong structural, cultural, and political constraints (Agussalam, 1985).

Beginning in 1983 LPTP shifted its approach to *alternative education*, choosing this term instead of the more popular *nonformal education* due to a perception that nonformal education had been

successfully coopted by government agencies and had become little more than top-down literacy campaigns. (1)

Using this more general organizing approach LPTP undertook a number of highly successful community programs. A micro-hydro program in the remote mountainous village of Segorogunung gained international attention when recognized by UNICEF as one of the five best community development efforts in the nation under the *What's Working in the World?* program. This and other programs convinced LPTP of the primacy of community organizing, community education, and community participation.

LPTP is an NGO largely staffed by group of egalitarian, volunteers. The core staff of 20 all receive the same basic salary, organizational leadership is rotated every two years, and most of the field staff is comprised of volunteers drawn both from local universities and village communities. Within this organizational context LPTP leadership recognized the importance of developing *learning process* approaches that would aid in further development and refinement of approach models while contributing to ongoing staff development efforts.

LPTP became a founding member of *JARI* in 1984, and by 1985 had adapted Action Research as its core approach strategy(2). Despite this formal adaptation of the approach, clear definition of the theoretical underpinnings of Action Research plus mastery of the requisite field methods for putting theory into practice remained suspect.

(1) Central Java was declared free of illiteracy in 1986 by the provincial government. However the political nature of this proclamation becomes suspect with a visit to almost any poor rural village or urban slum.

(2) This author lived in Solo and worked with LPTP from 1983-1986, and is currently serving on the Board of Advisors of LPTP.

In addition to sending staff members to various *JARI* workshops, LPTP took the initiative of holding both in-house and areal training programs. In 1985 a regional workshop was held in Solo under LPTP auspices involving both domestic and foreign Action Research practitioners. In 1986 LPTP hosted the *JARI* workshop on evaluation and documentation methods for Action Research (*JARI*, 1986). Over time an organizational goal emerged: LPTP wanted not only to employ Action Research within its programs, but also desired to become a resource and training center for other NGO's undertaking Action Research. In order to meet this goal LPTP began the planning and preparation process for what would be a five month long, field-based training program in Action Research.

#### Training Program Planning and Development

As an initial step LPTP conducted an internal workshop involving all staff and fieldworkers to diagnose problems associated with the development and implementation of Action Research within the LPTP programmatic context. Problems identified all had to do with weaknesses perceived within current or past LPTP Action Research efforts. The key problem areas identified included:

- o *Conceptual Understanding:* Why Action Research? Where does Action Research stand vis a vis other community development strategies? What is the concept of 'development' underlying Action Research? How does Action Research relate to other forms of research such as *grounded* or *qualitative*? How can Action Research be defined within the context of LPTP programs and within the light of such concepts as *participation* and *democratization*.
- o *Approach Models and Methodology:* What general approach models should LPTP pursue? What are the key elements and stages of these models? What methods, techniques, and materials can be used effectively at the fieldlevel at each stage of the model?

- o *Evaluation and Documentation:* What sort of documentation is necessary within Action Research? How is this undertaken and by whom? What evaluation criteria can be applied within Action Research programs?
- o *Special Issues:* What do we mean by 'local culture', and is this resource or a constraint within Action Research practice? How can 'democratization' be defined within the current Indonesian context? What is the role of NGO's in promoting attempts at structural change?

All staff members were involved in this problem identification process since a difficulty within the organization was found to be the lack of uniformity of perception; especially between older and newer institution members. In order to tackle these problems, LPTP developed a comprehensive training on Action Research with the involvement of outside resource persons, facilitators, as well as staff from other agencies involved in actual Action Research implementation. The program received the support of *JARI* for basic materials, transport for facilitators, and stipends for other *JARI* sponsored participants.

#### Training Program Objectives

After the needs assessment activity, LPTP was able to define several broad goals for the training program as follows:

1. To improve LPTP staff knowledge and skills in the planning, implementation, documentation, and evaluation of Action Research
2. To reflect upon previous experience and to draw lessons from this experience that can be put directly to use in the field.
3. To develop informational manuals and training manuals concerning key aspects and elements of Action Research and to design technical guides for fieldworkers/village cadre involved in Action Research programs
4. To create an inventory of Action Research materials, books, literature, and resources to be used by interested staff and outside persons; i.e. an organized Action Research resource center that can serve as the basis for future program development.



## Program Participants and Facilitators

Twelve LPTP staff members and six persons from *JARI* were selected for the training. Participants were selected via an open process that included each nominee writing a five to ten page paper about their concerning experience in Action Research. All participants were required to have had actual field experience within Action Research programs with fifty percent of the participants drawn from fieldworkers currently active in LPTP Action Research programs. In this way participants would be paired with current fieldworkers for fieldwork portions of the course.

Core facilitators for the course were Roem Topatimasang and Russ Dilts. Both were involved in the problem identification process at LPTP and both had extensive experience in training as well as in field-level Action Research development. Additional resource persons were drawn from the NGO community and the 'activist social science' community. These resource persons and the topics they addressed included:

- Mansour Fakhri: Program officer for P3M, an NGO dealing with Pesantren (Islamic community institution) development for topics dealing with structural change at the local level and participatory methodologies.
- Kartjono: The head of Bina Desa, the largest national NGO coalition; concerning topics related to NGO roles in national development
- Dawan Rahardjo: Islamic activist, social scientist, and former director of the large national NGO LP3ES for discussions concerning the national political economy
- Michael Frith: International Action Researcher advocate and nonformal educator for conceptual perspectives on Action Research

- Arief Budiman: socialist economist for dialogue concerning 'democratization'
- Romo Mangunwijaya: activist, author, dissident priest, for discussions on 'local culture'

### Instructional Design

The training program was designed to be an integrated, staged program covering a five month period. The long time frame was felt to be necessary since experience had shown that short duration workshops and seminars succeeded mostly in spreading jargon without substance. Face-to-face three-day workshop sessions were interspersed with two-week fieldwork sessions where participants worked directly with ongoing LPTP programs in the area. In this way it was hoped that in-class learning would related to upon field reality, and that results from group sessions would be 'reality-tested' during fieldwork periods.

From the outset the program was designed to be fluid, responsive, and participatory. *Process* was given priority over planned *content*. The workshop proceeded from a basic plan, with a large amount of time delegated to contingencies so that issues and problems could be pursued to fruition and not artificially truncated due to pre-determined time allocations. The initial workshop was used to develop a learning contract between the facilitating team and the training program participants and the last half-day of each workshop was used to plan both fieldwork activities and the outline for the next three-day workshop. Participants took over the responsibility for all documentation, location preparation, materials development, and evaluation activities on a rotating basis.

## Program Content

The training program fell into five parts. These sections will be outlined in the following paragraphs and then examined separately in the remainder of this case study. The five broad sections of the training program will be listed and briefly outlined below.

1. *The Basics of Action Research*: this portion of the training comprised three workshops including an initial planning workshop. Including fieldwork the this part of the training covered a six week period. The following topics were covered most important areas covered during this period were:

- An analysis of previous Action Research programs carried-out by LPTP
- A comparative literature review concerning documented cases of Action Research. Descriptions found in the literature were compared with LPTP experience.
- The Creation of an inventory of available and accessible Action Research and related literature
- The development of a descriptive model of LPTP Action Research including key principles and answering the question, "Why Action Research?"

2. *From Concept to Action: Action Research Approaches, Techniques, and Methodologies*: this part of the training covered two three day workshops and a total time of four weeks including fieldwork. The two major areas of emphasis for this part of the training were:

- Analysis of approach models and stages of Action Research program implementation
- Skill practice and simulation of variety of techniques applicable at identified program stages

3. *Appropriate and Effective Use of Action Research*: at this point in the training participants began to put together theoretical and field

learnings to develop approach strategies for actual application of Action Research. This portion of the training comprised three workshops and a total time period of six weeks. The main areas of activity during this part of the training were:

- Developing abilities to match appropriate strategies, methods, and models with particular conditions in order to generate an effective program
- Analysis of appropriate documentation and evaluation methods for use with Action Research programs
- Analysis of actual cases through the development of analytical case frameworks and descriptive case studies

4. *Special Issues:* by the middle of the training program a number of special issues had arisen. Time had purposely been allotted during training planning for dealing with these issues. Guest resource persons were located for handling workshops on the following topics. A total of three workshops were held concerning the following special issues:

- NGO roles in effecting social change
- Democratization within the Indonesian context
- Local culture and its meaning in development
- Measuring 'Quality of Life'

5. *Development of Materials and Follow-up Proposals:* this final section of the workshop involved the integration of learnings into the everyday functioning of the organization. Four workshops and eight weeks were allotted to this portion of the training. In reality, much more time was utilized since by this time the twice-monthly 'workshops' had become part of the LPTP routine, continuing long after the training had formally ended. Key areas within this segment of training were:

- Creation of outlines for fieldworker manuals

- Finalization of case studies on Action Research
- Development plans for follow-up training and other training initiatives

### Key Issues and Outcomes

The following will provide highlights of the key issues and outcomes emanating from each section of the five month long LPTP Action Research Training, beginning with *The Basics of Action Research* on through the development of follow-up activities.

#### The Basics of Action Research

The three workshops held concerning this topic included nearly two days spent on developing the 'learning contract' for the overall program comprising schedules, topics, facilitators, expectations on the part of participants and resource persons, and logistics for fieldwork sessions.

Subsequent to this most effort was applied to an analysis of previous LPTP Action Research programs plus other programs in Indonesia and abroad. Dr. Michael Frith of the University of Iowa served as resource person for one of the workshops and provided examples of cases in other countries as well as participating in the general dialogue.

The *key questions* identified during this section of the training were '*Why Action Research?*' and '*What is LPTP's Version of Action Research?*'. A literature search and comparison with cases from other organizations and countries quickly revealed a broad range of possible options. The group agreed that LPTP must come-up with its own justifying rationale and definition that would be at the very least acceptable internally and not incongruent with LPTP organizational objectives and staff values.

Eventually a document entitled, with some levity, *The Eleven Commandments of Action Research at LPTP* (*Sebelas Firman Riset Aksi LPTP*) emerged. While developed during the initial section of the workshop, this set of principles and understandings was constantly revised over the course of the training. While some of the marks of large committee construction including overlapping content and sometimes obscure definitions remain; *all* group members participated actively in the development and editing of the manifesto and eventually all felt that further attempts at clarification were unnecessary due to the large amount of time spent in group dialogue concerning each specific point. In short, the goal of developing a common, thoroughly discussed rationale for Action Research within LPTP was achieved. The '*Eleven Commandments*' are listed below with a synopsis interpretation and consequent implications for fieldworkers.

#### Why Action Research? The Eleven Commandments of LPTP

1. *Action Research is aligned with community needs and aspirations.* To LPTP, this means that via Action Research the community is provided a vehicle for the expression of their values, history, and experience, thus Action Research assumes that communities possess knowledge and are capable of identifying and solving their own problems. In Action Research, the community should be in control of the research process. Implications for fieldworkers include a belief in the ability of the community, and the willingness encourage communities to express themselves. In this sense, the role of the fieldworker is to promote a *process* of development that will build awareness and self-confidence within the community.
2. *Action Research is an approach capable of reaching the poorest segments of the community.* The *poor* are herein defined as those who are illiterate, have minimal economic livelihoods, have little access to information, and have little control in determine their own future. Action Research must be capable of reaching and involving the *poor* in it programs. The implication of this are that methodologies must be accessible to the poor, and not just cater to the educated elite of the village.

3. *Action Research is democratic and participatory in nature.* Democratic in what? In defining needs, making decisions, and evaluating results. Why Democratic? Because all community members should have equal rights of opinion and decision making; hence poor community members can directly express their aspirations without having to rely on intermediaries or local elites. What are the indicators of democracy? Communities give free voice to their values and needs and are not afraid to demand their rights or refuse imposed conditions. Democratic communities can accept and tolerate a variety of opinions and will agree to accept majority decisions they have participated in. For fieldworkers, this means working with individuals and groups to promote the development of democratic processes, mechanisms, and institutions.
4. *Action Research can penetrate cultural constraints and unleash cultural strengths.* Cultural constraints involve how poor communities have an internalized feeling of inferiority compared to 'superior' outsiders. This feeling is often manifested in fatalistic attitudes and the 'culture of silence'. Action Research demands an examination of local cultural values and perceptions undertaken with the community and not the acceptance of an overt, or hidden, 'cultural status quo'. Fieldworkers must know their own cultural biases and be equipped to learn about local culture. They must also value local culture and realize that social behaviors often result from specific historical experience.
5. *Action Research can liberate and consciensitize the community.* In this respect, Action Research becomes both a process and a goal. Awareness building can be undertaken through institutionalization of the action-reflection cycle within community based efforts. The fieldworker must be aware that personal and social awareness are tied to local cultural norms. Methods must be utilized which will allow the community to act upon its situational analysis since action is the only real measure of awareness.
6. *Action Research promotes community welfare.* Within Action Research as defined by LPTP, welfare refers to 'quality of life', and not 'standard of living'. Quality of life includes elements of culture, politics, religion, education plus awareness of social environments. Quality of life includes access to opportunities, inputs, and decision making affecting personal and community life. Action Research has social goals, including improve quality of life. Fieldworkers must pay attention to the process goals of institution building, thus providing mechanisms for expression and decision-making.
7. *Action Research is humanitarian and people-centered, not alienating.* Action Research recognizes and accepts the history and social existence of the community. the community and the individuals comprising it are treated as active *subjects* within the process of learning, growth, and social change and not as passive objects. Fieldworkers must be able to mobilize the community and institute learning processes wherein all members of

the process are treated with respect as teachers and resource persons, and not target objects. Fieldworkers must avoid imposing interventions upon the community, and work to transfer organizational skills to community institutions.

8. *Action Research is an appropriate, flexible, and inclusive approach to research and community development.* Action Research does not demand the setting of targets and timelines in a prescriptive manner from the outside. The approach is flexible and inclusive of a broad range of methods at different stages of the process, and is not bound by any particular method, school of thought, or analytical framework. Action Research can promote existing community development efforts by promoting more systematic research, analysis, and reflection, i.e. more developmental learning on the part of both fieldworker and community. Fieldworkers must work to make Action Research a part of the social dynamic of the community where it takes place. Local norms and knowledge is valued since there is no single 'expert' with all the answers. Experience must be documented so that models developed can be analyzed and further built upon in other locations and programs.
9. *Action Research provides a strong framework for conventional community development programs.* Community development is similar to Action Research in that it takes into consideration the needs of the community. However, recently community development in practice has become tied to output oriented projects where communities are merely mobilized for short term goals. Action Research emphasizes process, operationalizes participation, encourages local knowledge generation, and builds local institutions. In contrast to community development, Action Research is a cycle, not a single-shot linear program. The Action Research cycle is repeated continuously with the end goal of institutionalizing the process. Community development focuses only on formulation and implementation, hence Action Research represents a broadened approach framework expliciting placing value on many things only implicit in community development.
10. *Action Research promote social solidarity.* Social solidarity involves caring, understanding, and sharing. Manifestations of solidarity include the motivation and willingness to undertaken joint action. Social solidarity also contains an element of self-sacrifice, i.e. the possibility of sacrificing personal interests for group interests. Social solidarity can also be reflected in the confidence of a group in confronting outside forces; hence social solidarity is a source of strength. Social solidarity implies the need to eliminate any social distance between fieldworker and community, there can be no 'researcher-researched' dichotomies. Social solidarity has methodological implications: Action Research cannot use alienating methods accessible only to the few and not the many.
11. *Action Research promotes alternative approaches and innovative methods.* Action research at LPTP represents an alternative to previously tired approaches such as community development and



conventional 'top-down' strategies. Action Research is congruent with institutional goals and values including the promotion of social solidarity and community participation in all aspects of development. The wide range of methods suitable to Action Research and its focus on *process* make it appropriate as the overall approach to all LPTP programs in the field. For fieldworkers this means learning new skills and attitudes, otherwise the adoption of Action Research at LPTP will be only 'old wine in new bottles'.

Other Activities in Part I of the training included discussions concerning the attitudes necessary for Action Research fieldworkers. As is often the case in the treatment of inaccessible 'attitudes' little concrete came out of this exercise. The one clear outcome was the agreed upon necessity to attempt to examine any unstated or even unconscious cultural norms/attitudes of fieldworkers (outsiders) before going to the field. In most cases in Indonesia, attitudes are something 'out there' in the community that must be changed rather than something that might also be internalized within outsider fieldworkers.

*Fieldwork* for this section of training included extended visits to several of LPTP's ongoing field programs as well as assessment of previous projects in light of the '11 commandments'. Each participant also developed a paper concerning his vision of Action Research plus remaining issues that should be further discussed later in the training. From analysis of this input, a short list of topics involving leading outside speakers was established on such topics as *democracy in Indonesia, local culture, measuring 'quality of life', the role of NGO's in the national political context.*

#### Action Research Approaches, Techniques, and Methodologies

A clear constraint to the development of Action Research programs at LPTP as determined via the needs assessment activities was limited

access to and training in relevant techniques and methodologies. Most LPTP staff members were 'second generation NGO' persons, i.e. had come into NGO work in the 1980's and had not benefited from a wave of training in nonformal education methods and approaches that had been available to NGO staff in the mid to late 1970's. It was indeed found that few staff had had much formal training in community organizing techniques at all before going to the field. This is a common phenomena in Indonesia: whereas major national NGO's based in Jakarta have had repeated access to substantial training programs, smaller regional and local NGO's have either received no training at all or very truncated workshops from secondary sources.

*Approach analysis* formed the first step in the process geared to bring together analysis from Part I concerning previous and existing LPTP approach cycles in Action Research. From this, a basic model was defined including the following stages or steps:

*1. Research*

*4. Reflection*

*2. Analysis*

*3. Action*

Each of these stages were further broken down in steps which would involve the application of specific techniques or methodologies:

*RESEARCH*

- Social orientation
- Baseline data collection
- Social analysis/organization
- Community research

*ANALYSIS*

- Meetings with individuals
- Community/group organizing
- Problem identification and analysis
- General community meeting

*ACTION*

- Group meetings
- Action planning
- Management/monitoring

*REFLECTION*

- Periodic review meetings
- General review meetings
- Social organizing

Each stage, and to an extent each identifiable step in the process was hence open to a range of techniques and methodologies:

*Research* techniques and methodologies included such conventional methods as baseline surveys, grounded research, and observation as well as more participatory methods including community mapping, photonovella creation, and peoples' theater.

*Analysis* methods moved toward time-tested nonformal education methodologies such as group dialogue/discussion, group dynamics exercises, SWOT analysis, JOHARI analysis, simulation games and Force Field analysis.

*Action* methods included participatory planning techniques such as the Bamboo Bridge and Meta-planning which are designed to involve whole communities in the action planning and implementation process.

*Reflection* techniques included review of photo documentation, the creation of historical slide presentations, and the conduct of general community review meetings.

After this identification process was concluded, the remainder of the time in this section was dedicated to actual skills practice in a number of these methods. In line with the '11 Commandments of AR' most of the time available was spent on the more participatory techniques including *community mapping/self-survey, photo-novellas, and methods of group communications, group dynamics, dialogue, participatory planning, and group problem solving/analysis.*

During fieldwork small groups of participants developed materials and tried out new or unfamiliar techniques in actual community settings. Difficulties or problems encountered were then reviewed at subsequent meetings.

The main change between former methods and newer approaches came in the area of initial approach and research. Previously LPTP had been locked into the use (due to lack of training in alternatives) of classic baseline surveys and 'grounded' research which tended to make the initial approach and initial activities predominantly outsider controlled. New inputs concerning methods such as community self-surveys, and people's theater were readily adopted. However, due to time constraints, further training in these techniques was programmed as separate training after and outside of this program (1).

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**(3) A major workshop in People's Theater was subsequently held in Solo in early 1988 in collaboration with LPTP and other LPTP staffers have since been involved in full workshops on participatory research methods, group dynamics/communication skills, and participatory evaluation.**

### Appropriate and Effective Use of Action Research

By this point in the training participants had grappled with basic concepts, reviewed literature and previous projects, and spent the better part of three months working in real communities with actual ongoing projects. This section of the training focused upon the development of more in-depth analysis of particular cases from the field. In all, a total of nine cases were reviewed in depth via (1) the development of descriptive case studies, (2) the creation of detailed comparative frameworks, and (3) The analysis of the 'research profile' of each program. Small teams worked on each particular study, and at each stage of analysis the work was reviewed through the vehicle of twice monthly workshops.

Case summaries, the comparative frameworks developed, and the research profiles of one example program will be shown on the following pages. This example represents a 'snapshot' of ongoing processes since the community programs started several months before the Action Research training began and will continue for at least a year after the end of the training. The overall goal of the analytic exercise was to sharpen perceptions concerning activities, goals, results, and both positive and negative effects at each stage or step of a process. Another outcome of the process was an increased awareness of the individuality of specific communities and hence the realization that there could be no 'cook book' recipe for success that would be everywhere applicable.

Example Case: Action Research in the Village of Saren. This example will provide a summarized version of one of the fieldworker written cases.

The village of Saren is located in Kalijambe District approximately thirty kilometers from the Central Javanese town of Sragen. The farmland in the village is unirrigated rice field yielding one rice crop and one crop of peppers, groundnuts, or corn per year. In this sense it is not the typical Javanese rice farming village with irrigated land, nor is it a mountain village. Some 95% of the farmers in the village own land, albeit an average holding of just under 0.5 hectares.

The village social strata falls roughly into three categories: small farmers, traders/small businessmen, and civil servants. Over time the civil servant segment of the population has come to be dominant and control most of the formal positions within the community including village government and cooperative leadership.

LPTP entered the village in with the intention of using Action Research approaches to develop an Alternative Education program among the poorer segments of the community. From previous programs LPTP staff discerned that education was closely linked to social and economic status, and that in villages such as Saren increasing social and economic polarization would lead to the development of an underclass increasingly shut-off from good educational opportunities, i.e. limited to compulsory primary education. The goal of the program was to create a 'community movement' as opposed to 'community development program' wherein education would be viewed in the broadest sense to include social organization and a range of group programs building upon local resources and capabilities.

The *Comparative Framework* (Table VIII-1 at the end of this chapter) and *Research Profile* (Table VIII-2 at the end of this chapter) illustrate some of the details of the program analysis process. This

program is planned to continue for up to five years, and as such the analysis undertaken at this point in the program has shed light on emerging problems and issues including:

LPTP initially approached formal village leadership in order to gain official sanction. This caused problems later as LPTP workers were identified with the village elite. However, other 'entry points' were difficult since this program was begun during the period of national elections when security measures were strictly enforced. At present the only way out of this dilemma is seen to lie in the commitment of extended periods of living in the village plus the commitment to a long time frame for the program.

Penetration of a range of top-down programs into the village is such that community perceptions and expectations are often formed before work has even begun. This was evident in Saren. In order to overcome this and the initial approach difficulties, LPTP recruited and trained twenty-two *village cadre* selected directly from the poorer stratum of the community. This approach has not been wholly successful up to this point. The village cadre became something of a 'new elite' somehow connected with 'outside resources'(LPTP) even though LPTP made it clear from the start that they could not serve as a donor (*sinterklaus*). Eventually a number of the cadre dropped-out when they found that their new 'status' did not include monetary gain.

As organizational efforts began to take hold, and the poorer community began to initiate a number of its own programs and hold its own meetings, a different set of problems emerged: this time with the village government. Village governments, no matter how elite or distant from the poorer sections of the community, believe themselves to be the

only valid initiators of development. Numerous attempts were made to coopt community programs either via pressure on village cadre or through approaches/threats aimed at LPTP. Fortunately, LPTP is accustomed to this problem and has found that perseverance, and re-doubled efforts at strengthening existing organization, are the only means of coping with such pressure.

The *methods* applied in this program included a 'double' research effort in that LPTP undertook a simple baseline survey by its fieldworkers before the program was initiated. Subsequently village cadre were selected and trained who undertook a community 'mapping' exercise the results of which were discussed at a series of group and general meetings. Based upon experience and new methodological inputs received during training there is agreement that the initial research stage should involve the broad community rather than be limited to LPTP fieldworkers or village cadre. Frank examination it was found that previous approaches and methods were more rhetorically than practically participatory.

Despite constraints, the first ten months of work in Saren has yielded *results*. A large number of ongoing groups have emerged with a variety of programs. The current plan is to 're-cycle' the program sometime in the next six months; i.e. hold a series of general and group meetings to reflect upon experience to date and develop directions for further efforts.

LPTP had long been accused, and accused itself, of being highly energetic and often effective but quite unsystematic in terms of how it went about its field work. As in many groups drawing their staff from amongst committed social activists, there is little patience with reflection



and the emphasis is always upon action. This came out clearly during the training, and for this reason a considerable amount of time was spent on examining past and current approaches in a detailed and analytic manner. Another weakness had been documentation, which for the most part remained in the heads of specific fieldworkers. For the first time via this training LPTP staff expressed satisfaction with their own shared understanding of what they were doing in the field, how and why. Finally, the need for Action Research at LPTP, other than fashionable rhetoric, became evident as the benefits of the approach with its built in emphasis on model building through more rigorous data collection, analysis, and reflection became clear to the entire organization.

#### Special Issues in Action Research at LPTP

This portion of the workshop was designed to allow for further discussion of conceptual issues arising during the course of the training. A number of very prominent national figures and social activists came to hold dialogue sessions with the workshop participants.

Of note in this section of the training, and as was noted by all of the guest resource persons, was the high level of preparation evidenced by LPTP participants. The goal of the sessions was not to be 'lectured', but rather to engage in critical dialogue with resources person during which LPTP participants would define and guide the course of discussion and gain practice in leading discussion meetings. In each of the three three-day workshops the first two days were spent with the resource person and the third day was designated as an internal participants meeting where ideas gleaned were re-applied to earlier

workshop products including the '11 Commandments' and analytical frameworks.

#### Developing Workshop Follow-up

This workshop has produced several clear follow-up activities:

1. *Review and Planning Workshop:* at the end of the training a joint workshop was held including members of *JARI* plus several local NGO representatives. At this two day workshop the results of the training were presented and reviewed and the additional group members were involved in the planning of follow-up activities.
2. *People's Theater Workshop:* held in February 1988 in Solo involving local and national NGO's.
3. *Slide/Video Presentation Development:* LPTP's Action Research program was documented in the form of video and slide presentations for wider dissemination.
4. *Action Research Training Curriculum and Manuals:* participants from the workshop developed basic fieldworker training manuals and materials based on the experience of the five month workshop. Follow-up programs have begun in several locations around Solo including cooperative arrangements between LPTP and the Resarch Center of the Universitas Sebelas Maret, Solo.
5. *Publications/Documentation:* a complete book of cases and analysis were developed based on the Solo training to further document the current state of experience with Action Research at LPTP. Numerous articles based on the training have also appeared in the Action Research bulletin *ALTERNATIF*.

## Lessons Learned

This case sheds light on some of the key operational questions covered in this case, some of which will be reviewed in brief in the following paragraphs.

How is Action Research operationally defined within a specific organizational and program setting?

- When attempting to define Action Research within a specific context, short definitions will not do. LPTP went through a long process on the question 'Why Action Research?' which delved into organizational goals, principles, and values. These elements were incorporated into the 'Eleven Commandments of Action Research' that was jointly created by LPTP staff and fieldworkers.
- *A key element in the definition* of Action Research is its relation to community development. For LPTP Action Research expands community development and makes explicit the need for a cyclical *process* and not a linear set of 'project' activities. Action Research states as end goal the development of local institutions engaged in action-reflection cycles geared to practical problem solving. Importantly, Action Research refines initial community approaches, replacing alienating forms of outsider surveys with participatory types of inquiry.
- *Operationally*, Action Research provides a staged, cyclical model. Each step of the process can be broken down into component activities. Previously, LPTP community development efforts sometimes loosely defined community interventions with no framework holding activities together, making assessment of progress and developmental learning difficult.

What factors promote or constrain the application of Action Research approaches at the field level?

- *The main constraint found within LPTP* was a weakness in terms of methods. Many simple, effective techniques can be taken from participatory nonformal education and blended into the Action Research framework to form a cohesive approach. If fieldworkers are weak in technique, Action Research becomes just rhetoric hiding conventional practice.
- *At the community level* application will be easier in communities with prior community development experience and existing local organizations. The degree to which the village elite attempt to coopt development activities in the the community will also determine the amount of conflict to be expected when working

determine the amount of conflict to be expected when working with poor segments of the community. As in the case of Kajen, legitimate and respected village leadership will smooth the progress of Action Research activities.

What must be considered when designing and implementing Action Research training programs?

- *From Rhetoric to Practice:* rhetoric spreads faster than practice, especially in the local NGO context. Short workshops in Action Research (1-5 days) cannot be expected to result in conceptual clarification nor in improved field methodologies.
- *Grounded Training:* it is questionable if a generic Action Research training program can be developed due the contextual specificity required within Action Research. Good Action Research training will demand that new learnings be tested immediately within field practice.
- *Documentation:* a great weakness of local NGO's lies in documentation. This lack of documentation also promotes the continued domination of small organizations by a handful of original founding members. One strong contribution of Action Research approaches is emphasis on creating and continually analyzing a range of data from the field. Most fieldworkers can learn to develop lucid, useful documentation if given the opportunity, training, and support.
- *Process Flexibility:* like Action Research in the field, training for Action Research should be participatory and flexible. For this training a basic outline was established jointly. 'Trainers' selected for the program were process rather than content oriented. Participants assisted in facilitating sessions, chaired all fieldwork planning, produced workshop outputs, and by the end of the training were fully in charge of the process. One interesting output of the training was the fact that LPTP continued with twice monthly one day sessions on Action Research long after the training had officially ended. Hence, the goal of the training at base was to institutionalize a process of Action-Reflection within the organization and to make staff members confident and comfortable in organizing and handling this process.
- *Replicability:* A key goal of the program was the development of a 'fieldworkers manual' for Action Research that can be used in future training. The temptation here has been to 'formalize' the curriculum and key points of the five month training program. At this point it is unclear if this approach will be truly effective, if not contrary to the process flexibility which made the trail program a success.

- *Cadre Training:* While this training proved highly beneficial for LPTP staff and fieldworkers, it is too early to tell if this input is sufficient to engender changes within village programs. One of the lessons of Case I is that if the goal is to transfer the *process* to the community level, time and resources for training must be allocated accordingly. As of this point no further village cadre training has been undertaken, hence it is too early to discern how experience from the above discussed training will affect new community level programs.

Table 8.1 A RESEARCH CONTINUUM: LPTP PROGRAM IN SAREN VILLAGE, CENTRAL JAVA

*New Paradigm/AR/PAR*

<i>Conventional</i>									
Centralizing, Social control, Domestication Assistencialism	3	2	1	1	OBJECTIVES	1	2	2	3
									●
Central Controlling/predicting External	3	2	1	1	INTERESTS SERVED	1	2	2	3
									●
Professional, Paid, Remote, Expert, Source of Knowledge and Method	3	2	1	1	RESEARCHER	1	2	2	3
									●
Passive Research Object, Object of observation, Human variable	3	2	1	1	COMMUNITY	1	2	2	3
									●
Abstract, Quantitative, Needs expert interpretation	3	2	1	1	METHOD	1	2	2	3
									●
Numerical, Abstract	3	2	1	1	DATA	1	2	2	3
									●
Comparison to fixed reality, Quality of method	3	2	1	1	VALIDATION	1	2	2	3
									●
Reports, Documents, Planning Inputs, Policy	3	2	1	1	PRODUCTS	1	2	2	3
									●
Government, Management, External Planners	3	2	1	1	CONSUMERS	1	2	2	3
									●
Banking, Selective, top-down, Edictal	3	2	1	1	DISSEMINATION	1	2	2	3
									●

Table 8.2 COMPARATIVE CASE FRAMEWORK II

	Step I: Initial Data gathering	Step II: Cadre Recruitment	Step III: Cadre Selection	Step IV: Cadre Training	Step V: Community Research
Activity	<ul style="list-style-type: none"> <li>-Contact community leaders;</li> <li>-Meet informal leaders</li> <li>-Hold discussion with range of community members (200 persons)</li> </ul>	<ul style="list-style-type: none"> <li>-Identify cadre candidates(22)</li> <li>-Discuss candidates with community</li> </ul>	<ul style="list-style-type: none"> <li>-Hold general community meeting concerning cadre</li> <li>-Officially appoint (10 persons)</li> </ul>	<ul style="list-style-type: none"> <li>-Twice weekly Training meetings held in Village hall</li> <li>-Community Leaders also attend training</li> <li>-To learn about village social dynamics</li> <li>-To improve org. skills</li> </ul>	<ul style="list-style-type: none"> <li>-Community Mapping</li> <li>-Individual interviews with leaders, farmers, housewives, laborers</li> <li>-Group discussions</li> <li>-Cadre reports</li> <li>-To create comm. self-understanding</li> <li>-To improve critical thinking ability and sensitivity to problems/potential</li> </ul>
Goal	<ul style="list-style-type: none"> <li>-Orientation to the community</li> <li>-Develop relations of presence and purpose</li> </ul>	<ul style="list-style-type: none"> <li>-Identify comm. potential leaders</li> <li>-Clarify the role and function of cadre</li> </ul>	<ul style="list-style-type: none"> <li>-Insure Cadre acceptability</li> </ul>	<ul style="list-style-type: none"> <li>-New skills in group org. tech., nonformal ed.; media utilization, communication skills</li> </ul>	<ul style="list-style-type: none"> <li>-Community 'Map'</li> <li>-Information on economic sit/cond, social dynamics, agriculture, local history and customs</li> </ul>
Output	<ul style="list-style-type: none"> <li>-Reports on baseline status of community</li> <li>-Initial acceptance of LPTP presence</li> <li>-personal relations with community members</li> </ul>	<ul style="list-style-type: none"> <li>-22 candidates</li> <li>-Understanding of candidate perceptions of community and role</li> </ul>	<ul style="list-style-type: none"> <li>-Selection and appointment of 18 cadre</li> <li>-Social contract with community</li> <li>-Diminished suspicion</li> <li>-Support of village leadership</li> </ul>	<ul style="list-style-type: none"> <li>-Increased number of groups and group activities</li> <li>-Improved skills and confidence in cadre ment.</li> <li>-Cadre become 'elite'</li> </ul>	<ul style="list-style-type: none"> <li>-Community views cadre as new elite</li> <li>-Participatory techs still need improv-</li> <li>-Observation that research still to reliant on literacy skills</li> </ul>
Impact	<ul style="list-style-type: none"> <li>-Improved communication</li> <li>-Awareness of 'outsider' expectations</li> <li>-fieldworker perceptions of community grounded</li> </ul>	<ul style="list-style-type: none"> <li>-Many questions from the community concerning purpose of cadre</li> <li>-Improved understanding of LPTP goals/purposes</li> </ul>	<ul style="list-style-type: none"> <li>-Lingering impression that cadre were LPTP staff</li> </ul>	<ul style="list-style-type: none"> <li>-Need better prepared materials</li> </ul>	<ul style="list-style-type: none"> <li>-Fieldworker supervision of research should be increased</li> </ul>
Analysis	<ul style="list-style-type: none"> <li>-Initial data gathering should involve comm.</li> <li>-Process too long</li> <li>-Concern about initial contact via village elite</li> </ul>	<ul style="list-style-type: none"> <li>-More dialogue with community is necessary during recruitment</li> </ul>	<ul style="list-style-type: none"> <li>-Meeting constrained by rains</li> </ul>		

Continued next page

Table 8.2 Continued

	Step VI: <u>Individual Dialogues</u>	Step VII: <u>Group Meetings</u>	Step VIII: <u>Community General Meeting</u>	Step IX: <u>Action Programs</u>
<u>Activity</u>	-Repeated meetings with individuals/families, interviews -Training cadre in consultation skills	-Fieldworker and cadre attend group meetings -Discussion and problem identification -Follow-up with individuals	-Cadre and community prepare/organize meeting -Each neighborhood holds prelim. meeting on issues -General meeting facilitated by cadre	-Programs designed at group level based on GM results -Groups formed for tailoring, savings/loan, cooperative, religious youth study groups, small business -Economic feasibility studied, outside resources inventoried
<u>Goals</u>	-To further understand local history and community perceptions -To improve depth of relationship with community -To institutionalize the dialogue process	-Improved relations with groups -Improved group skills -Initial problem identification and analysis	-Creation of joint forum for poorer community -Set of programs decided upon together	-To develop action plans for concrete community improvement activities
<u>Results</u>	-Cases and notes on community history -Increased membership in groups	-Data collected on 28 groups -Women's groups re-organized -Tasks identified and divided (group management improved)	-General program developed and ratified -Social sanctions and support created	-Plans finalized in groups -Implementation begun
<u>Impact</u>	-More critical examination of community history emerged -Reliance on cadre and fieldworkers began to emerge	-Ideas for programs emerged rapidly -Existing group problems overcome and many groups strengthened/revived	-Despite process, expectations of outside resources from LPTP still high	-Conflicts begin between groups/cadre vs. village government/elite
<u>Analysis</u>	-Dialogue techniques and support materials need to be improved	-Strong surge of interest -Few drop-outs	-The general meeting was originally LPTP's idea; met resistance from village gov't.	-Too many programs undertaken at once caused some diffusion of effort and waste



CHAPTER IX  
SUMMARY CONCLUSIONS

This chapter will try to synthesize some of the key insights and outcomes that have come from five years of working with Action Research programs in the Indonesian context. In order to do this a brief summary response will be attempted for each of the main questions guiding this study.

1. *What is the dominant/traditional research paradigm and what is its relationship to social action programs?*

Conventional research approaches, mostly informed by logical positivism and empiricism, have institutionalized a split between research and action. Formal methodologies appropriate to the natural science have been applied to the study of interacting persons and societies. At the field level this split leaves social scientists in the position of being technicians whose questions are defined by what their methods will accommodate, not by what is socially important. Field practitioners are practically denied the use of sophisticated methods, or when they do utilize them they run the risk of alienating the communities they work with. Additionally, the outputs of traditional social science research has often proven to be of little use to those interested in concrete social change.

Despite this, critiques of the dominant paradigm seldom tell us what to do instead. This gap is beginning to be bridged by the Critical Social Sciences, a possible theoretical underpinning for alternative forms of research.

2. *What is the developmental history of the Action Research model and how has this model been conceptually and operationally adapted to the Indonesian context?*

Action Research began with Kurt Lewin in the 1940's. His theoretical and practical works have informed a wide range of trainers, activists, and social scientists, and organizational development specialists in the years since. The basic model includes the steps of *analyzing, fact-finding, conceptualization, planning/action, and evaluation* in an ongoing process cycle. Action Research is the bogey-man of traditional science in that it emphasizes asking the right question over methodological rigor. Action Research is a model that is inclusive and adaptable to a variety of situations and allow for the interface of social activists, social scientists, and communities.

Action Research fell into disuse during the 1960's, but has resurged in variant guises during the 1970's and 1980's as *alternative research* paradigms and critiques of the dominant paradigm became more strident.

Within the Indonesian context social activists, predominantly persons involved with NGO's have resuscitated the concept and applied it to community development. Action Research's inclusivity has made it necessary to define the exact parameters of the concept for specific organizations in terms of their own contexts, goals, and values. As such, Action Research resonates with such strategies as Participatory

Research and Participatory Community Development. The model has been further operationalized by the inclusion of many nonformal education methods and techniques within the cyclical framework.

3. *Of What Value is the Action Research Approach within Indonesian Community Education and Development Programs?*

- **Learning from Experience:** the introduction of Action Research approaches as enabled institutions to strengthen incremental learning processes by emphasizing the necessity of routine reflection and analysis exercises. Groups had expressed this as a recurrent weakness of programs before the introduction Action Research. Programs utilizing Action Research approaches are much more likely to evolve over time. Previously, evaluation and reflection components of programs will take a backseat to 'action' when time and resources are limited.
- **Promotion of Sustainability:** Programs such as Kajen or Lestari wherein community solidarity and experience is held uppermost and is built upon are more likely to continue with or without outside assistance. Dependency on outside resources is lessened simultaneous with the heightening of community control and understanding of the development process.
- **Effectiveness, Empowerment, and Participation:** Action Research approaches make moot the distinction between effectiveness and empowerment concerning participation. Action Research approaches can serve to institutionalize participation as a necessary part of all community development activities.
- **Congruency of Values and Practice:** many groups and institutions espouse participation and empowerment while being trapped within conventional development approaches at odds with these principles. Action Research approaches allow for a meeting of theory and practice.
- **Process Emphasis:** Action Research views development as a continual, cyclical process rather than an event. As such, the approach can break the linearity of conventional community development approaches wherein each new program must start fresh with a new round of outside needs assessment since this function has not be institutionalized within the community.
- **Improved Documentation:** many programs, especially those undertaken by Indonesian NGO's, are notoriously weak on documentation. The Action Research approach necessitates solid documentation of activities and pushes this activity down to the community level.

4. *What is the current Indonesian political and economic context, and how does this affect the development and application of Action Research?*

The Indonesian development context is changing rapidly and the population, as well as the economic circumstances, are demanding moves toward economic and political democracy. On a policy level, the justification for Action Research is now well established in guidelines calling for *bottom-up planning by communities, community self-reliance, and full community participation in development*. Action Research practitioners are responding to this by developing programs reflective of these values.

5. *What factors promote/constrain the viability of Action Research within particular program settings?*

While at the field level many factors come into play, in terms of operationalizing Action Research the following items must be give close attention:

- **Previous Experience:** At the practical level, Action Research forms a relatively refined critique of current practice in community education and development. Groups and individuals new to community development and community education will find Action Research to be yet another piece of confusing jargon. Action Research is most appropriate to those groups and individuals who have already had grass-roots level experience in development and who have begun to become critical of some of the methods and assumptions hidden therein.
- **Support Networks:** groups and individuals already working in development should have developed grass-roots and higher level support networks. These networks can strengthen the basis for Action Research implementation and allow the eventual spread of the program to other locals. Networks can be either horizontal (relations with other community programs) or vertical (cross organizational linkages).

- **Methods:** the introduction of Action Research is especially appropriate for development workers who have only been exposed to limited concepts of 'research'; e.g. research being equated with surveys and instruments imposed upon all programs regardless of the research questions posed or the programmatic values espoused. A key resource for Action Research methods lies within the domain of participatory training and nonformal education. Persons coming from this background are quick to pick-up the significance of Action Research as a conceptual framework for practical work.

6. *What are the possibilities and problems for future Action Research within the Indonesian context?*

**Possibilities:**

1. Continued government policy pressure for community participation will open many opportunities for Action Research both for new and ongoing programs in all sectors.
2. NGO's have finally gotten a grasp upon the basic concepts and methods of Action Research and are beginning to apply the approach in a wide variety of settings
3. University personnel, social scientists, and academicians are beginning to show more interest in alternative forms of research

**Problems:**

1. The dominant research paradigm remains powerful. Economic and statistical analysis define scientific practice in Indonesia. Few universities even recognize qualitative methods, let alone any sort of new paradigm research.
2. The jargon of Action Research has spread more quickly than solid field practice. This is especially true in NGO circles since the term has become fashionable. Consequently, confusion has spread to the point Action Research has been labled a '*tuyul*', or ghost: it is everywhere but impossible to grasp. National level workshops and seminars have taken precedence over training in actual programs and methods.

7. *What follow-up activities are now underway to further promote Action Research development and dissemination in Indonesia?*

In order to address the above situation, *JARI* members are undertaking a variety of activities at the present time. Some of the specific activities underway include:

-Indonesian Case Book: *JARI* is in the process of assembling a case book of Indonesian Action Research programs from associated member organizations.

-Training Manual Development: LPTP and P3M are in the process of developing training manuals for both the community cadre and fieldworkers.

-Method and Material Development: at present (August 1988) training in Action Research methods is ongoing in three locations with specific focus on actual methods development and implementation at the community level. Training is being focused upon village journalism, people's theater, participatory group techniques. Another joint program is currently being developed between the Sebelas Maret University's Research Center and LPTP for further experimenting with Action Research and training university students in the method.

Within government programs, Action Research methods are being used for 'bottom-up' planning in urban slum improvement efforts. Within the irrigation sector policy support seems to have solidified around the concept of allowing farm communities to participate in initial water and system design surveys

-*Alternatif*, the Action Research bulletin, is finding its way into an increasing number of hands, and the requests for assistance from organizations interested in applying the concept far outstrips *JARI* assistance capacity. Efforts are also underway to compile Indonesian translations of a range of basic articles and monographs on Action Research

While it cannot be said that Action Research has become a movement, it is clear that since 1984 Action Research has moved out of the seminar room and into the community. So far, those utilizing the Action Research approaches and methodologies have found them to be highly effective in clarifying basic assumptions about development and also in providing some of the basic tools necessary to bring about truly participatory, sustainable community development.

## APPENDIX A

### CASE SETTING: THE INDONESIAN IRRIGATION SECTOR

Twenty years ago upon the initiation of REPELITA I, the nation's first five year development plan, Indonesia's rice output per hectare stood at 1.45 tons (DGWRD-Directorate General of Water Resource Development, 1988). Despite attempted mass programs in agriculture, Indonesia in 1973 imported over 1.3 million tons of rice. With the oil price surge of the 1979's came a swelling of investment in agricultural production including subsidization of seeds and fertilizer, the establishment of floor price mechanisms, and institutional development. Irrigation systems, which on Java were estimated to be functioning at only 50% of capacity (DGWRD, 1988) were also the target of massive investment. In 1986, when President Suharto received recognition from the FAO in Rome for Indonesia's achievement of self-sufficiency in rice (*swasembada pangan*) outputs per hectare had risen dramatically to an average of 3.5 tons per hectare.

The role of irrigation development in the achievement and maintenance of self-sufficiency in rice is crucial. In areas outside of Java irrigation improvements have contributed more to productivity than even chemical fertilizers and new seed varieties (Asnawi, 1988, p.11). In maintaining and extending rice production, and in increasing other crop yields, irrigation will continue to play a key role in coming years.

## Irrigation System Classifications

Irrigation in Indonesia is formally defined as the supply and management of water supply in support of agriculture. System classifications are broken down as follows (Asnawi,1988,p.15):

1. *Irigasi Teknis*(Technical systems) having dams with flow measuring and control devices plus both primary and secondary canal systems. Construction and maintenance of the system by Public Works down through secondary constructions, with responsibility for all tertiary and on-farm systems delegated to farmers and local government.
2. *Irigasi Semi-Teknis*(semi-technical systems) similar to technical systems except for the lack of a water debit measuring system and the fact that government (Public Works) responsibility extends only to key constructions. Responsibility for all system maintenance falls to farmers and local government.
3. *Irigasi Sederhana or non-teknis* (Simple non-technical systems) also designated as village systems, community systems, or traditional systems. All construction works, management, and maintenance conducted and funded by community and local government. Basically, all systems not falling under *semi-teknis* or *teknis* rubrics.

The Directorate General of Water Resources has recently proposed that a fourth category be added, namely *teknis maju* (advanced technical) that would include systems upgraded from a *teknis* standard. In terms of community or farmer responsibility Presidential Instruction No.2 1984 places this in the hands of Water Users Associations at the system or village level.(*INPRES*, 1984) As can be surmised, the level of integration between these two management systems (government and community) will greatly determine the effectiveness of a particular irrigation systems.



### Small Systems in Indonesia

Division of responsibilities between government and farm community is based on the above classifications. However, these classifications to note take into account the concept of system size. Irrigation in Indonesia is predominantly small scale irrigation, (Robinson, 1986) with 4,600 systems of less than 1000 hectares irrigating over 2.6 million hectares (Poffenberger and Morfit, 1984). Despite this, in recent years the government has increasingly taken over management and system development responsibilities for small systems (Korten, F. 1988). As is the case in Malaysia where the government manages systems as small as 11 ha, systems as small as 20 hectares run by the government have been found in Indonesia due to their *semi-teknis* status. It is estimated that during the period 1975-1985 the government took on the responsibility for major works of some one million hectares of village systems.

Government budgets are constricting. This coupled with the need for extensification to counter an annual loss of an estimated 55,000 hectares to building and other uses makes policy concerning system area and system management for small systems of key importance. Whereas the trend over the last 15 years has been toward government 'take-over' of systems, as witnessed by figures indicating a diminution of *seederhana* (village) systems ; current policy trends are moving toward the incorporation of 'turn-over' programs placing greatly increased responsibility in the hands of the farm community and changing the role demand of government. As responsibility, authority,

and possibly even funding of small systems moves out of the hands of government and into the hands of ; the issues of system areal jurisdiction; division of management, authority, and responsibility; and the interface between government agencies and village institutions will be become increasingly crucial within the overall effort to consolidate harvst self-sufficiency. As policy frameworks become more clear, the success of irrigation programs will rest upon the translation of policy into institutional capacities both within the government and at the village level. These issues will be examined more thoroughly in following sections of this study.

Community participation and sustainable local institutions cannot be decreed into existence. Experience elsewhere has shown the tendency toward rhetoric for participation, and resources for physical infrastructure (Honadale and VanSant, 1985).

#### Definitions: Sustainability and Participation

Development is often treated like a vaccination; something providing lifetime effect with a single dosage. Sustainability links implementation with outcomes and concerns the continuation of benefit flows with or without the projects or organizations that initiated these benefit flows in the first place. The degree of sustainability can be seen as the percentage of goods or services still being delivered five years past the termination of direct assistance; including the continuation of local action resulting from project developed local capacity (Honadale and VanSant, 1985). When talking of sustainability, development becomes a continuing process, and not just an implementation event.

Participation, also, is often viewed narrowly. Forms or levels of participation include:(Inter-American Foundation, 1976)

- Presence: beneficiaries participate in only some activities, their principal role is as recipient of services while they are asked to supply in-kind contributions of labor.
- Representation: wherein beneficiaries have a mechanism for articulating their needs plus the leverage to make their voices heard. Beneficiaries participate in major decisions and influence policy, priorities, choice of technology, and allocation of resources.
- Control: beneficiaries exercise direct and effective control over projects and influence policy formation. Beneficiaries control planning and design, allocation of resources, sharing of profits and expenses. Beneficiaries make decisions due to ownership or control of decision making committees and can apply leverage through networks and linked groups. At this level dependency on key persons or outside resources is minimized.

Clearly, the transition from presence to control is situationally conditioned and requires consistent policy and sustained resource allocation to be achieved. As irrigation programs in Indonesia move toward policies of turn-over and cost recovery; and as development policies in general emphasize increase local control and 'bottom-up' participation; the issues of participation and sustainability will become paramount.

#### Beneficiary Participation in Indonesian Small Scale Systems

Trends during the 1970's indicate that: (Poffenberger and Morfit, 1984,p.5)

- More national resources and programs were targeted to small scale irrigation development
- The increase of government support for small scale systems caused a corresponding increase in responsibility and workload for the Department of Public Works
- Farmer and Water Users Association contributions (i.e. community contributions) for rehabilitation and maintenance for small scale systems decreased

Illustrations of these trends can be gleaned from the experience of the *Sederhana* projects. Between 1974 and 1980 USAID contributed loans totalling \$48.7 million and grants totalling \$11.3 million. These funds were to supplement an initial government of Indonesia investment of \$31.7 million in 1974. The entire program was geared to the rehabilitation and development small scale systems covering 550,000 hectares in 24 provinces and using relatively simple technology. Despite overall success in increasing yeilds and improving irrigation systems generally (Gray, 1978) the *Sederhana* projects exhibited several types of problems:

- Poor systems design and location resulting in less area irrigated than specified in the design
- Non-functioning structures including turn-outs, division boxes, washed-out canals, and poorly built diversion weirs
- Structures destroyed or altered by farmers including 'added' turn-outs, broken measuring devices, etc.
- Poor Maintenance attributed to farmer's perceived lack of ownership and including silted/weed-filled canals, canal walls damaged by livestock, broken-down structures, etc.
- Poor systems management including water taken out of turn or poor distribution of water among farmers.
- Lower yields than projected based on the assumption that improved physical facilities would automatically yield improved harvests.

These shortfalls were attributed to a lack of farmer involvement in decision making due to the centrally planned nature of the program. The HPSIS (High Performance Sederhana Irrigation Systems) grew out of the realization of these shortcomings and the need to formulate participatory models of irrigation development and management.

The Evolution of Participatory Approaches in Indonesian irrigation development has been a continuous process for the last 8 years. Beginning in 1980 a number of efforts were undertaken by the Ministeries of Agriculture and Public Works in collaboration with international funding agencies and national NGO's to develop and test models for participatory irrigation development and management.

Two of the major and most recent experiments in this area, the HPSIS program and efforts in the Simalungun system in North Sumatera will be examined via cases within this study. Both approaches made use of national NGO's to field CO's (community organizers) to assist communities with design, construction, and operation and maintenance of irrigation systems.

#### The Current Policy Consensus

Over the last several years a consensus has emerged concerning future policy with regard to small scale systems. Recommendations reflective of this consensus on key issues coming out of the Cipayung Policy Workshop and can be summarized as follows:

1. Areal Jurisdiction: an irrigation system comprising less than 500 hectares should be under the jurisdiction of a single WUA. Inter-relations between irrigation systems falling within the boundaries of a single village will be coordinated by the Government Village Head; between systems crossing village boundaries by the Sub-District Head, those crossing sub-district boundaries by the District Head of Government, and those crossing district boundaries by the Provincial Governor. WUA can form coalitions when either very small or where they utilize the same primary water resource.
2. Status of Physical Works: in line with Government Regulation No.23 1982, "all irrigation systems under 500 ha should be developed and operated by the farmers themselves, with or without assistance from the Government". Irrigation systems under 500 ha, even those receiving assistance from the Government, should remain under WUA jurisdiction and authority.

The Government remains authorized and responsible for managing water resources serving multiple irrigation systems, although local community aspirations should be taken into close consideration. An increasing degree of authority and responsibility for survey, design, construction, operation and maintenance for systems under 500 ha should be given to WUA.

3. WUA Legal and Financial Status:

- WUA should be made legal bodies via decrees issued by District Government Heads or Mayors of Municipalities in line with Presidential Instruction No.2 1984 concerning WUA. Full legal body status should be ensured so that WUA will be able to receive assets, credit, and enter into contractual relationships with third parties. Procedures for obtaining full legal status should be streamlined.
- The election of WUA officials is the prerogative of the WUA membership. In order that WUA become more representative and autonomous, WUA leadership choices should avoid overlap with local village government leadership.
- WUA representatives should sit on District level Irrigation Committees in order to ensure solid representation of community aspirations.
- In cases where the Government has or will develop irrigation systems of less than 500 ha, operation and maintenance authority/responsibility as well as all physical system assets should be turned over to the WUA in charge of the system.
- Procedures and systems for asset and authority turn-over should be streamlined in the near future in order to increase WUA autonomy and self-reliance as well as to improve WUA membership's feeling of control and responsibility for irrigation systems.

This emerging policy consensus provides a policy framework to guide future development and improvement of small scale irrigation systems. However, policy statements are one thing, and full transition to a new way of developing and managing small scale irrigation systems is another. Clearly, it will take more than rhetoric to bring such policy initiatives into reality.

## The Role of Indonesian NGO's in Developing Beneficiary Participation Approaches

Over the last 15 Indonesian NGO's have come into their own. Either on their own or in collaboration with Government agencies, NGO's play an important and effective role in national development by directly benefitting disadvantaged groups, tackling difficult issues in hard to reach areas, piloting new approaches, increasing the effectiveness of government initiatives, and influencing development policy formation. NGO contributions to national development theory and practice have become more visible and important as the emphasis of development has moved from provision of centrally planned, sectorally operated services programs to activities which emphasize the *process* of development, community participation, bottom-up planning, and the development of self-reliant local institutions. Some of the characteristic strengths of NGO's can be listed as follows: (Salim,1984; Sartono, 1988; Korten and Klaus, 1984; Betts and Rahardjo, 1987; Chambers 1987)

1. An emphasis on participatory processes wherein the community is seen as the *solution*, not the *problem*.
2. More flexibility in developing and trying-out new approaches and models due to their small size, decentralized structure, and relative lack of bureaucratic constraints
3. The ability to work at the grassroots level directly with communities to involve the people in their own process of development
4. Highly committed staff, sometimes termed the 'new professionals' who bring both technical competence plus a belief in self-reliant development to their work.
5. The use of approaches which combine action and learning to maximize sustainability via the development of local capacities to solve problems.

Relationships with the government have not always been smooth. *ORNOP* (*Organisasi Non-Pemerintah*) the direct translation of the English term NGO, has been dropped in favor of *LPSM* and *LSM* (Self-Reliance Development Institutions) since the term *ORNOP* raised 'anti-government' connotations. However in terms of technical cooperation with Government agencies in pioneering participatory approaches in health extension work, nonformal education, entrepreneurship training, *pesantren* development, urban community development, social forestry, etc. NGO's and government has collaborated at all levels from national to village. NGO-Government collaboration has increased in recent years, while government regulations concerning NGO's have been tightened ('The Societies Act', 1986). This situation has led some to believe that many NGO's have been coopted by government projects and national prominence into becoming 'toilet cleaners' (Oepen, 1988) responsible only for cleaning-up messes made by Government projects while compromising their own autonomy and efforts to effect 'another development'.

Water is a renewable resource, and research has shown that programs incorporating the development of local beneficiary institutions built around a renewable resource base can be viable. Local institutions established to manage such resources can provide a degree of sustainability to programs and projects essential in light of shrinking government budgets.

Two major national NGO's, LP3ES and Bina Swadaya, have been involved in the promotion of beneficiary participation in irrigation programs. Both of these organizations have a broad range of experience in the development of participatory programs at village, provincial, and



national level. Compared to some of the programs they have initiated and succeeded in institutionalizing such as *Usaha Bersama* (village collectives for rural poor) or *pesantren* (rural islamic boarding school) community development bureaux; the improvement of Water User Association capacity in the development, maintenance, and management of irrigation systems should not pose a great problem in light of accumulated experience with other programs.

Some problems and issues have already arisen, however, concerning NGO involvement to increase beneficiary participation in irrigation:

1. From Pilots to dissemination: NGO involvement to date has been limited to pilot projects of limited scope and duration with LP3ES and Bina Swadaya fielding their own staff as CO's. The question remains concerning how to maintain effectiveness while increasing the area of coverage.
2. Add-on or Integration? should activities involving NGO's and beneficiary participation remain add-ons to existing irrigation approaches, or should there be a fundamental integration of the roles and functions of NGO's within existing sectoral agencies in order that internal capacity be developed for the long term? How can this be achieved? How fast? What are the pre-requisites? (training programs, technical manuals, etc.)
3. Non-physical contractors: Should national NGO's be 'contractors' for the non-physical portion of irrigation much as building contractors are for physical works? Or should NGO's work within agencies charged with irrigation development to develop approaches, test and evaluate models, develop training programs and materials, and provide technical assistance? How can NGO's maintain their independence and remain 'partners of the community' under such arrangements?
4. Level: should NGO's focus solely on implementation, or should they be involved at higher levels(i.e. national policy formation)? Are NGO resources sufficient for these roles?
5. Local or National NGO's?: what advantages or disadvantages are there in using national NGO's for regionally based projects? Cost? Exclusion of local NGO's? Sustainability vs. lobbying power in Jakarta?

Besides these broad issues, there are technical issues at the village level concerning models of beneficiary participation that must be addressed:

1. When to field CO's: before, during, or after system construction? How much time is needed to be effective at each stage?
2. Who? should CO's be recruited from and by NGO's? Should CO's be trained and placed from within existing agencies? Should new staff functions and categories be created to accomodate this as suggested by NIA experience.
3. What should they do? exactly what activities CO's undertake remains poorly defined. Purely community organizing? Participate in technical survey and design activities? Serve as community-government liaison? Determining 'what' with some accuracy will help to determine the types of training and preparation needed to create effective, participatory beneficiary institutions.
4. Institutional Setting? are CO's purely village based, or under the Irrigation Committee, or a section of a government line agency, or independent?

These questions are interlinked, and concern the 'models' currently being examined for wider dissemination. Experience to date has shown that pilot application of models of irrigation development and management on a pilot scale have been largely successful (Korten and Bagadion, 1988). Experience in other countries, notably Sri Lanka and the Philippines indicates that beneficiary participation in irrigation can be both effective and efficient. Supportive policy frameworks are coming into place in Indonesia that decree the importance of beneficiary participation.

## APPENDIX B

### RECOMMENDATIONS ON POLICY AND IMPLEMENTATION ISSUES

#### 1. Beneficiary Participation for the Third Irrigation Sector Project

This project envisages substantial beneficiary participation plus the pilot testing of turn-over for systems under 500 hectares. As such, the program will be the testing ground for new policy initiatives concerning beneficiary participation; bring the policy and practice of DGWRD in irrigation in line with current GBHN demands for 'bottom-up planning' and a re-definition of the role of government vis a vis local institutions.

From the case study review, the approaches used in HPSIS and in Maligas Tongah appear to be mutually complementary and might be combined and consolidated into a single model.

HPSIS, despite a mandate for developing participation from initial design through to operation and maintenance, has been proven effective in system design and construction. The weakness in the program appears to come in the development of local institutions (WUA) for sustained operation and maintenance activities.

Bina Swadaya in Maligas Tongah pioneered improved methods for initial site identification/benchmark data gathering via the development of Agro-Institutional profiles. Subsequent to this their CO's worked to develop basic organizational structures, functions, and leadership for WUA's. The weakness of the approach is the fact that organizing activities started only after construction had been completed.

Proposed Model: based on the review of these two cases, a possible model for beneficiary organization might include:

- CO placement at least 6 months before construction. If possible, CO's to be placed at a specific site should be involved in the Agro-institutional profiling activity to shorten 'acquaintance' time in the village and to provide a well-defined entry point. CO activities should emphasize concrete, participatory activities such as group system mapping, group problem identification, and basic management training. Activities that increase group cohesiveness should be encouraged; i.e. creation of village histories.
  
- Design and construction: system designers work on short time scales with limited detailed information. Preparatory work done by WUA's and CO's before designers arrive should increase system effectiveness and acceptability. In this way WUA's and communities will not merely 'react' to technical designs, but will have initial input. CO's will require some technical training in order to make this effective. Many complaints were heard about construction, from unmet wage demands to poor quality materials, to lack of coordination between contractors. If communities are expected to contribute labor 'in-kind', this must be organized well in advance and be made exceptionally clear to all concerned. More leverage for WUA's, for example sitting on local irrigation committees, might make it easier for them to control contractors building 'their system' and hence increase ownership and responsibility

- Operation and maintenance: reviews of HPSIS showed little improvement in the management of water distribution. From limited observation this seems due to the emphasis on physical construction inputs versus longterm institutional development. 'Institutional development' became a formality, i.e. completing WUA registration. CO's should remain on site to work on maintenance and operation for at least 2 harvests subsequent to construction since differences often emerge between wet vs. dry season distribution. CO roles should also be 'turned-over': WUA will need to gain confidence and access to relevant government offices and become their own 'mediator'. For this, WUA's should have representation on requisite joint committees at higher levels (re: *panitia irrigasi*) From cases reviewed, WUA's seemed to become dependent upon CO's for 'bridging' and mediation functions, which is effective in the short-run but detrimental to long term sustainability. Subsequent to CO placement, a mechanisms for ongoing support should be in place so that WUA can receive periodic inputs of assistance. Assistance related to turn-over might include financial management training, general planning and management, leadership, problem solving, etc.

This model envisages roughly 18 months of fulltime CO support for a single system. The number of CO's to be fielded should depend on : system size, geographical distribution, number of organizations (WUA) involved, and system history emerging from the profile (i.e.: social stratification, existing water management practices and organization, etc.).

## 2. Co's for Remaining Simalungun sub-projects

- The CO's posted by Bina Swadaya in Maligas Tongah were effective in developing local institutions, especially WUA, that should contribute greatly to project sustainability (i.e. the flow of benefits five years after 'project' completion). In conjunction with CO's changes were made in the physical system, water distribution was improved, and the basic organizational processes were put in place to make the WUA a sustainable group.

- Where possible CO's should be placed well before construction (6 months) As shown via the HPSIS model in West Sumatera the placement of CO's for design and planning is both cost and program effective and results in improved systems plus improved local organizations. Many of the complaints from residents of Maligas Tongah concerned the fact that they were not involved in initial planning, design, and construction.

- NGO's should provide technical assistance to DGWRD in developing its own capacities for organizing beneficiary participation and promoting sustainability. There is a feeling that Bina Swadaya became another 'contractor' not totally integrated with other project components .

NGO's, either national or local, with clear experience in participatory approaches should be utilized to help develop an integrated system approach to beneficiary participation. This work would include:

- (1) Developing, testing, and documenting approaches, models, materials, and training packages
- (2) Fielding 'core staff' to work with several levels of the program, i.e. in pilot sites where DGWRD staff or local NGO staff can 'apprentice' and participate in the development of approaches; within sub-district or district level DGWRD offices in order to improve support mechanisms and the functioning of such bodies as irrigation committees; and in training programs including field-level programs for CO's

as well as workshops for DGWRD personnel and related officials.

- (3) Providing ongoing support for program extension so that activities do not end abruptly. After CO's finish their term at a particular site, a mechanism should be in place to provide WUA's with periodic follow-up supervision and assistance either on a routine or as needed basis

While the work of Bina Swadaya CO's in Maligas Tongah was found to be effective in stimulating beneficiary participation, if the 'beneficiary participation' component of the project remains an add-on, its effectiveness will be constrained from the outset and the chances of improving institutional capacity both at the village level and within DGWRD will be diminished.

### 3. Other issues and recommendatins

- Training: human resource development programs are the key to improved beneficiary participation. From the Cipayung Policy Seminar a set of quidelines emerged deterring division of roles of local WUA and Government in the management of new or existing systems. To turn policy into practive via training the following steps will be necessary:

- 1) Defining roles functionally/operationally, or determining exactly what personnel at different levels of the system must do.
- 2) Identifying specific tasks for each system level and the skills and knowledge necessary for undertaking these tasks
- 3) Determine training needs for each level by comparing current practice with new functional task demands. At this point real 'training needs' must be differentiated from incentive, motivational, or structural problems which constrain performance.
- 4) Develop training design and delivery system including the staging of the program, the level and source of inputs, and

time schedule. The design should be integrated with and reinforce actual program implementation, i.e. training should 'operationalize' the real system and produce real products utilized by the system; re: profiles, system maps, organizational plans, irrigation committee meetings, policy statements, etc. Good training design 'operationalizes' a system and a set of task behaviors in a well-planned manner under real conditions and yields real products.

- The Role of NGO's: national NGO's such as Bina Swadaya and LP3ES have a great amount of experience in improving beneficiary participation within government programs, and especially in developing training programs. National NGO's are also able to have an impact on national policy evolution due to their access in Jakarta. However, for longterm sustainability government and local institutional capacities so that inputs will not abruptly end when national NGO contracts are completed. NGO's by nature are not large scale implementing agencies, but are more effective in pioneering and operationalizing new approaches and methods. Local NGO's, while not possessing the experience of the older and larger national bodies, have the advantage of being closer to program issues and 'permanently nearby'. It is recommended that national NGO's be tapped for the development of approaches, methods, training materials, and pilot development while Government institutions make commitments of staff who will eventually handle beneficiary participation components. Since government agencies cannot restructure overnight, national and local NGO's can fill the interim gap in manpower and expertise.

- Inter-agency coordination: the issues of participatory irrigation system development primarily concern three government agencies: The Ministry of Public Works, the Ministry of Agriculture, and the Ministry of Home Affairs. Bringing the Ministry of Home Affairs into policy



discussions has proven beneficial. This Ministry is committed to the development and implementation of 'bottom-up' approaches and the re-definition of government roles vis a vis village communities. In other cross-sectoral programs such as PPSDTP for integrated urban basic social services, and BANGDES for integrated village level development planning, Ministry of Home Affairs officials have played a key role in coordinating sectoral agencies and providing forums for community involvement. It is recommended that their role be strengthened in convening and overseeing the *panitia irrigasi* and that WUA's and if appropriate involved local NGO's be represented on these committees.

- Learning and Action: as a final note, few programs that separate learning from action ever succeed in reaching their goals. The success of this program will depend on a cluster of inter-related variables including policy support, re-orientation of sector goals to include beneficiary participation, the development and implementation of new procedures and guidelines , training and orientation for several levels of government officials as well as villagers, the acceptance and integration of new functions within the irrigation program, the strengthening of local institutions, the development, testing, and refining of new approaches and methods. It cannot be hoped that this amount of change, however carefully staged and planned, will go smoothly. Project that try to move too fast from 'pilots' to dissemination are doomed to failure, or at least a watering down of performance. Over the last eight years significant progress has been made in the area of beneficiary participation in irrigation, and the guidelines are falling into place for the next steps. Whatever next steps are chosen, strong components of review, reflection, documentation,

evaluation, and re-formulation of concepts and plans should be built-in from the start.

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