Towards Community Development: 
Exploring Possibilities With The Rural Poor In The Philippines 
Through Participatory Systemic Action Research

Virgie N. Callo
1997

PhD Thesis
Systems Agriculture

The School of Agriculture and Rural Development
University of Western Sydney, Hawkesbury
Richmond, NSW, Australia
PLEASE NOTE

The greatest amount of care has been taken while scanning this thesis,

and the best possible result has been obtained.
This thesis is original work submitted to the University of Western Sydney, Hawkesbury. None of it has been submitted to another institution for a higher degree.

Virgie N. Callo
ACKNOWLEDGEMENT

It is with profound gratitude that I acknowledge every institution and every person who in one way or another contributed to this thesis. I carry in my heart the memories of their invaluable support that made this study possible:

To the Australian Agency for International Development, for the generous scholarship grant;

To my supervisors Dr. Roger Packham, Robert Macadam, Dr. Nadarajah Srisakandarajah and Dr. Lourdes Laniog for their unwavering support and illuminating critique throughout my study. Their involvement with my fieldwork in the Philippines was a source of inspiration;

To the staff and students of the School Agriculture and of Social Ecology, for their consistent support and warm encouragement that enabled me to learn from the challenges of this study;

To the people of San Fernando for their participation in this research;

To the core group for their sustained commitment to this research;

To Lin Waddell for her editorial assistance;

To Prapti Sedijani who has supported and assisted me in the preparation of this manuscript.
ABSTRACT

This thesis is about exploring possibilities for improving the situation of a rural community in the Philippines. The philosophy, theories and assumptions underlying are discussed. This research which fulfilled its primary intent of fostering change through action also served as a verification of the value and usefulness of a Participatory Systemic Action Research. The role of participation in an emancipatory process is highlighted. The research process, following the methodological framework of Soft Systems Methodology, is described. Based upon the experience of a participative research, a critique of the Soft Systems Methodology is forwarded. The emergent outcomes of the research and its contribution to public knowledge are also discussed.

Keywords: Agriculture, Rural Development; Participatory Action Research; Philippines; Soft Systems Methodology; Participation; Learning
## TABLE OF CONTENTS

### CHAPTER 1
OVERVIEW OF THE THESIS

### CHAPTER 2
CONTEXTUAL GROUNDING

- **INTRODUCTION**
  - An Explanation of Some Terminologies

- THE UNFOLDING OF NARRATIVES
  - Drifting with Life
  - "Blood is Thicker Than Water":
  - My frequent visits to Barangay Rizal
  - Barangay Del Pilar: the “Information Center”
  - Barangay Bonifacio: the Forbes Park of San Fernando
  - Barangay Pinamasagan:
  - Where there is quiet, beauty and repose.

- FACTS AND IMPRESSIONS OF SAN FERNANDO
  - An Overview
  - The Place
  - The People
    - Our population by gender and age group
    - Migration and Mobility/Pattern
    - Literacy
    - The Out-of School-Youth
  - Our Livelihood
    - The rate of unemployment
    - Household Income
    - Household Expenditures
  - Our Land and Other Natural Resources
    - The Financial Resources of our Local Government
    - Looking at Food Sufficiency:
    - Crop Production and Animal Production.
    - Nutritional Status of Children

### RECAPITULATION

### CHAPTER 3

### HOLDING MULTIPLE PARADIGMS
CHAPTER 4

TOWARDS PARTICIPATORY SYSTEMIC ACTION RESEARCH

INTRODUCTION

MY PREFERENCE FOR ACTION RESEARCH

Highlighting The Value of Participation

My Choice of Methodology for This Research

Action Research As a Philosophy, A Way of Life

THE DEVELOPMENT OF ACTION RESEARCH

Defining Action Research

Three Modes of Action Research

Technical Action Research

Practical Action Research

Emancipatory Action Research

Relationship of the Researcher and the Researched

Third Person Research

Second Person Research

First Person Research.

EMERGING TYPES OF ACTION RESEARCH

Action Research and Participatory Research

Action Research and Critical Systems Thinking

Participatory Action Research

Emancipatory Action Research

Systemic Action Research

A FRAMEWORK FOR THE METHODOLOGY OF THIS THESIS

RECAPITULATION

CHAPTER 5

EXPLORING THE BROADER

ISSUES OF COMMUNITY DEVELOPMENT

INTRODUCTION

METHODOLOGICAL FRAMEWORK

The Spiral of Research Methodologies

The Soft Systems Methodology

PART I- GETTING INTO THE RESEARCH DYNAMICS

FORMATION OF THE CORE GROUP

The Core Group Members

The Role of The Core Group

A GLIMPSE OF PEOPLE’S PARTICIPATION

Core Group

Ad Hoc Committee

Farmers Group

Multi-sectoral Representatives

Barangay Representatives
People at Large Selected by Random Sampling 131

PART 2 - UNDERSTANDING THE SITUATION OF THE COMMUNITY 132

The Initial Picture 132

RICH PICTURING 132

Rich Picturing Activity 1 - First Multi-sectoral Workshop: 134

Orientation and Sharing of Awareness About The Situation 134

Reflecting About The Research and Its Methodology 135

Looking at the Socio-economic and Physical Profile of San Fernando 137

The Photolanguage Process 140

Rich Picturing Activity 2: 142

The Opinionnaire 142

Developing the Opinionnaire 143

Validation of the Opinionnaire 144

How We Administered The Opinionnaire 144

Making Sense of the Results 145

On awareness of the situation in the community (Appendix Table 5.4.1) 145

On Perception about community development (Appendix Table 5.4.2) 145

On Aspirations (Appendix Table 5.4.3) 146

Fears and Constraints (Appendix Table 5.4.4) 146

Attitudes on Collaboration (Appendix Table 5.4.5) 147

On Participation (Appendix Table 5.4.6) 147

Rich Picturing Activity 3: Informal Interview 148

The Meaning of Community Development (Appendix Table 5.6.1) 148

Appraisal of the Community Situation (Appendix Table 5.6.2) 150

Perceived Factors Contributing To Community Development (Appendix Table 5.6.3) 150

Perceived Constraints To Community Development (Appendix Table 5.6.4) 150

The Dreams for Community Development 153

Reflection on Our Interview Experience 155

Rich Picturing Activity 4 - Second Multi-sectoral Workshop 2: 156

‘Believing in Our Capacity For Change’ 156

The Review of the Orientation Workshop 157

Reaction to the Results Of The Opinionnaire 158

The workshop on the reality of change 158

Rich Picturing Activity 5 - Dialogues With The Barangays 159

Dialogue with the Coastal Barangays 160

Dialogue with Coastal Barangays 160

Workshop 1: Building The Story of The Past 160

Dialogue with Coastal Barangays 161

Workshop 2: Building The Story of The Future 161

Recapitulation and Making Sense of the Dialogue: Its Outcomes 162

Dialogue with the Upland Barangays 163

Dialogue with Upland Barangays 164

Workshop 1: Building The Story of The Past 164

Dialogue with Upland Barangays 164

Workshop 2: Building The Story of The Future 164
Recapitulation and Making Sense of the Dialogue: Its Outcomes 164
One Story, One Dream, One People: A reflection on Workshops on Change (Activities 4 and 5) 165
Rich Picturing Activity 6: Farming Systems Analysis 167
Validation and Administration of FSA 168
Collating the Data and Making Sense of FSA 168
Background Information:
(i) Agricultural Activities 169
(ii) Tenural Status and Land Area 169
(iii) Family Participation in Farming Activities 170
On Rice Farming 171
Perception on the Use of Modern Varieties of Rice 171
A Sense of Sustainability of Rice Production 171
On Livestock Production 173
Value of Raising Animals 173
Awareness and Access To Extension Services 174
Some Constraints To Animal Production 175
Management Practices of Native Chickens 177
Management Practices Of Pigs 178
Management Practices of Goats 178
Research Priorities 179
On Coconut Farming 179
Possibility and Acceptability of Goats Under Coconuts 180
A REFLECTION ON THE RICH PICTURING ACTIVITIES 180

CHAPTER 6

EXPLORING POSSIBILITIES OF IMPROVING THE SITUATION 182

INTRODUCTION 182
PHASE 1 - DEFINING CHANGES 184
CONSIDERING BROAD ISSUES OF COMMUNITY IMPROVEMENT 184
Mini-Workshop on Rich Picture 186
Mini-Workshop On Relevant Systems and Root Definition 187
Mini-Workshop On Construction of Conceptual Models 188
Awakening 190
Educating
(1) On Resource Management 191
(2) On Cooperativism 191
(3) On Livelihood 192
(4) On Values Formation and Leadership 192
Team Building 193
Sustaining the Initiatives 193
Increasing Productivity 193
Organize a Monitoring and Control Mechanism 194
A Reflection on Our Experience of Constructing Conceptual Models 195
Debate (and Dialogue) on Feasible and Desirable Changes 197
Comparing Conceptual Models and the Reality 197
Implementing Changes 201

PHASE 2 - SEARCH FOR A TECHNICAL INTERVENTION STRATEGY 202
STAGE 1 - UNDERSTANDING THE FARMING SYSTEMS 203
OF THE COMMUNITY 203
  Dialogues With The Coastal Barangays 204
  Verifying the FSA results 204
  Dialogues With The Upland Barangays 206
  Verifying the FSA results 206
Reflection With The Core Group 206

STAGE 2 - DESIGNING A TECHNICAL INTERVENTION STRATEGY 207
STAGE 3 - FEASIBILITY AND DESIRABILITY OF THE TECHNICAL INTERVENTION STRATEGY 211
Focus Group Meeting 211
Farmers Meeting 212
  Session 1. Highlights of the Farming Systems Analysis 213
  Session 2. Analysis of Poverty 213
  Session 3. Round-table Discussion: "How to Break the Cycle of Poverty?" 214

PHASE 3 - SENSING THE LEVERAGE FOR CHANGE 216
In Search Of Leverage For Change 217
Mini-Workshop on Conceptual Modeling 218
  Multi-sectoral Workshop: Debate on Feasible and Desirable Change 221
  Session 2. Conceptualization of the Transformation Process 222
  Session 3. Comparing the Model and the Reality 223
  Session 4. Defining Changes and Planning For Action 225
  Session 5: Deciding to Act 226
Reflection After Defining Changes 226

CHAPTER 7 227

REVISITING OUR VISION AND IMPLEMENTING CHANGES 227
INTRODUCTION 227
  Renewal of Commitment of the Core Group 229
PART 1 - INFORMAL ORGANIZING OF THE COOPERATIVE 230
  The Beginning Of The Consumers Cooperative 231
  Pre-Membership Education Program (PMEP) 231
PART 2 - DEVELOPING CONFIDENCE AND TEAM BUILDING 233
  Dialogue with the Farmers: 234
  An Attentive Listening 234
  Session 1: Listening with the Heart 234
  Session 2. Assessment of Resources 236
  Dialogues with the Ad-Hoc Committee: 238
  Discerning the Need for a Leadership Training 238
  Christian Leadership Training 239
  Preliminary Session 239
Session 1. On Assumptions and Learning 240
Session 2. Developing Self-Confidence 241
Session 3. The Power of Believing 242
Session 4. Visioning 243

PART 3 - IMPLEMENTING CHANGE: FORMAL ORGANIZING OF THE COOPERATIVE 244
Planning of Activities and the Issue of Inferiority 245
(Second) Pre-Membership Education Program 246
Introduction of Participants 247
The Opening Programme 248
Session 1: Explaining the Need for a Cooperative 249
Session 2: The Cooperative Principles 250
Session 3: The Possibility of Strengthening Cooperatives Through Federation 251
Session 4: The Requirements for Registering a Cooperative 252
The Spontaneous Dialogue 252
Meeting with the Farmers: 253
Clarifying the Desire for A Cooperative and Its Possibilities 253
A Round-Table Discussion 254
Formal Organizing of the Cooperative 260
Some Outcomes of the Organizational Meeting 261
An Update of The Cooperative 263

CHAPTER 8 265

PARTICIPATION FOR COLLECTIVE LEARNING AND COOPERATIVE ACTION : 265

DEVELOPMENT OF COLLECTIVE PRAXIS 265

INTRODUCTION 265
Participation And Its Emancipatory Character 266
EMERGENT OUTCOMES OF THE RESEARCH 268

PART 1. IMPROVEMENT OF THE SITUATION 269
Organizing a Cooperative: The Leverage for Change 271
What the participants have become in the process 273
An Articulation of The Transformation: 274
From A Sense of Resignation To A Sense of Hope and Decision 274
An Articulation of The Transformation: 275
From A Sense of Dependence To Self-help and Cooperation 275
An Articulation of The Transformation: 275
From Feeling small (and powerless) to Feeling Like a Champion 275
An Articulation of The Transformation: 276
A Realisation That We Can Help Ourselves 276
What I Have Become In the Process of Becoming 277
The Sense of Integration 277
The Sense of Fulfilment 278
The Sense of Solidarity 278
<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of My Research Praxis</td>
<td>279</td>
</tr>
<tr>
<td><strong>PART 2. EXAMINATION OF THE RESEARCH METHODOLOGIES</strong></td>
<td>280</td>
</tr>
<tr>
<td>Examination of the Participatory Systemic Action Research</td>
<td>280</td>
</tr>
<tr>
<td>Understanding the Situation of the People</td>
<td>281</td>
</tr>
<tr>
<td>and the Community In Its Complexity</td>
<td>281</td>
</tr>
<tr>
<td>In Allowing The Interests of the Participants To Emerge</td>
<td>282</td>
</tr>
<tr>
<td>In Exploring Possibilities For The Poor</td>
<td>284</td>
</tr>
<tr>
<td>In Allowing a Common Vision to Develop</td>
<td>284</td>
</tr>
<tr>
<td>or a Desired Change To Be Defined</td>
<td>284</td>
</tr>
<tr>
<td>In Generating a Social Energy Capable</td>
<td>286</td>
</tr>
<tr>
<td>of Fulfilling a Common Vision or the Desired Change</td>
<td>286</td>
</tr>
<tr>
<td>Examination of the “Spiral of Research Methodologies”</td>
<td>286</td>
</tr>
<tr>
<td>A Critique of Checkland’s Soft Systems Methodology</td>
<td>287</td>
</tr>
<tr>
<td>On Theory</td>
<td>288</td>
</tr>
<tr>
<td>On Methodology</td>
<td>290</td>
</tr>
<tr>
<td>On Ideology</td>
<td>292</td>
</tr>
<tr>
<td>Effectiveness of SSM in a Context of a Rural Community</td>
<td>292</td>
</tr>
<tr>
<td>The Role of Facilitation</td>
<td>294</td>
</tr>
<tr>
<td>Relationship of the Researcher and the Core Group to the Community</td>
<td>296</td>
</tr>
<tr>
<td>The Role of Identification with Other Participants</td>
<td>296</td>
</tr>
<tr>
<td>Passionate Engagement</td>
<td>297</td>
</tr>
<tr>
<td>Contextualizing The Learning Approach</td>
<td>297</td>
</tr>
<tr>
<td>The Soft Systems Methodology:</td>
<td>298</td>
</tr>
<tr>
<td>Its Potential for Emancipation</td>
<td>298</td>
</tr>
<tr>
<td><strong>CONCLUSION</strong></td>
<td>301</td>
</tr>
<tr>
<td>Some Implications for Future Practice</td>
<td>302</td>
</tr>
<tr>
<td>The Relationship of the Researcher and the Research Core Group with</td>
<td>302</td>
</tr>
<tr>
<td>the Community</td>
<td>302</td>
</tr>
<tr>
<td>Continuity and Length of Time</td>
<td>303</td>
</tr>
<tr>
<td><strong>APPENDICES</strong></td>
<td>305</td>
</tr>
<tr>
<td><strong>LITERATURE CITED</strong></td>
<td>370</td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>TITLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2.1. Map of the Philippines showing the relative location of San Fernando</td>
<td>27</td>
</tr>
<tr>
<td>Figure 2.3. Population pyramid: by gender and age group.</td>
<td>35</td>
</tr>
<tr>
<td>Figure 2.4. Pattern of household expenditures.</td>
<td>43</td>
</tr>
<tr>
<td>Figure 2.5. My initial perception about the situation of our community.</td>
<td>50</td>
</tr>
<tr>
<td>Figure 4.1. The researcher as technical expert.</td>
<td>91</td>
</tr>
<tr>
<td>Figure 4.2. The researcher as a social expert.</td>
<td>92</td>
</tr>
<tr>
<td>Figure 4.3. The researcher as interpretivist.</td>
<td>93</td>
</tr>
<tr>
<td>Figure 4.4. The researcher as a facilitator and clients as co-researchers.</td>
<td>94</td>
</tr>
<tr>
<td>Figure 4.5. The hierarchy of approaches to problem solving and situation improvement.</td>
<td>110</td>
</tr>
<tr>
<td>Figure 4.6. Participatory Systemic Action Research: its influences.</td>
<td>113</td>
</tr>
<tr>
<td>Figure 4.7. The interplay of theory and practice in the context of a rural community</td>
<td>115</td>
</tr>
<tr>
<td>Figure 5.1. Soft Systems Methodology as used in this research</td>
<td>121</td>
</tr>
<tr>
<td>Figure 5.2. The pyramid of dialogic groupings in the research process.</td>
<td>129</td>
</tr>
<tr>
<td>Figure 5.3. Those responsible for community development.</td>
<td>137</td>
</tr>
<tr>
<td>Figure 5.4. Insights about the situation of our community.</td>
<td>139</td>
</tr>
<tr>
<td>Figure 5.5. A summary of the dreams of our people as expressed by the respondents in the informal interview.</td>
<td>154</td>
</tr>
<tr>
<td>Figure 5.6. A mind-map of the people's visions and plans based from the workshop with them.</td>
<td>166</td>
</tr>
<tr>
<td>Figure 5.7. Historical record of rice yield in ten-year time.</td>
<td>172</td>
</tr>
<tr>
<td>Figure 5.8. Reasons for raising animals.</td>
<td>174</td>
</tr>
<tr>
<td>Figure 5.9. Prevalence of pests and diseases in poultry</td>
<td>176</td>
</tr>
<tr>
<td>Figure 5.10. Prevalence of pests and diseases in pigs.</td>
<td>176</td>
</tr>
</tbody>
</table>
Figure 6.1. Conceptual model on ensuring satisfaction of basic needs. 189
Figure 6.2. Conceptual model on improving farm productivity 196
Figure 6.3 Possible intervention strategy designed by the core group. 208
Figure 6.4. Technical intervention on integrated agri-business designed by the core group. 209
Figure 6.5. The vicious cycle of poverty. 214
Figure 6.6. The essential triangle in agriculture: a cooperative approach. 215
Figure 6.7. Conceptual model on cooperative development (with a low level of resolution). 219
Figure 6.8. Conceptual model on cooperative development (with a high level of resolution). 220
Figure 6.9. Our common desire of improving the situation of the community expressed through various stages of the inquiry. 223
This thesis is a story of development. It is a story of a quest for possibilities of life, possibilities that are usually denied to the poor whom Mahatma Gandhi called - the last, the least, the lost.

This is an "emergent" thesis as I will discuss in Chapter 8. I consider this an emergent thesis being a product of an evolutionary process. Its meaning can best be understood by looking at the whole process of its development. This thesis has developed through the interplay of theory and practice in the context of San Fernando, a rural community in the Philippines. This research was the search for an improvement in this community where I have seen the people struggle for a better life. Notwithstanding economic difficulties, the people are characteristically jovial and friendly with a happy disposition towards life. It is a community where expression of Christian faith is an integral part of life and culture.

The socio-economic context of this research is discussed Chapter 2. The data have been taken mostly from research into socio-economic profile of the community (Callo, 1990). In order to give the writing a "human feel", the community has been presented through narratives. These stories have been enriched by my being a member of the community, as a playful child, an idealist youth and as an adult with a growing sense of community.
The people of San Fernando have been the inspiration of this research. My personal story finds an echo in the story of its people and their story finds an echo in my heart - the story of our quest in the making of a better life, a better community. It is almost like having the same heartbeat with our people in our struggles and search for possibilities. This is research where personal issues and concerns integrated well with the research issues (Brew, 1988). It is this solidarity with our people that leads me in this text to speak of “we” in reference to the participants of this research. This means myself and the community.

“We” is an expression of solidarity with the people I worked with, a solidarity that is inherently a political principle, (Peavey et al., 1986) potentially emancipatory (Carr and Kemmis, 1986) and that can achieve social change. “We” is also an expression of a cultural idiom of a Filipino that I am. With our strong sense of a community and our value for relationships it is more spontaneous in our language to say “we” even when sometimes it means “I” for to say “I” is to be arrogant which is not pleasing in our culture. The use of “we” becomes more outstanding in reference to oneself and with one or two other person(s) in mind. In this research, it is with due recognition of the authentic participation of the people that I speak of “we”.

I also believe with Kemmis (1990) that, “we are the people who, through our work construct the practices, the tradition and the history of research ... we are active agents of research in our society - people who can through the choices we make about how we will participate in the work of research, tip the scales of history” (emphasis is added). Whether we know it or not, and whether we like it or not, by our methodological choices, we can shift the balance one way or the other between reproducing the kind of society we have now, and transforming it to make another kind of society that we hope will be better for us all.
The paradigmatic pluralism, a free-flow from objectivity to subjectivity, from reductionism to holism, that guided this research will be articulated in Chapter 3. Through these multiple paradigms we engaged ourselves in understanding reality with our quest for its transformation that is collectively meaningful.

As I have become increasingly aware of the almost unchanging situation of our community where massive poverty is a fact of life, a part of social reality, there flickered in my heart a desire for a change. With Freire and Shor (1987) I also believe that our vocation is to transform the world, and in so doing move to ever new possibilities of fuller and richer life, individually and collectively. I believe, too, that reality is not fixed and complete and that reality is becoming. While this research was done for a doctoral dissertation, it was not meant only for its own sake, but also as a dedication to our people in whatever way it can be of help. So I was spurred on in this research with passion and faith that life can change and that we can change the realities of our life.

Considering the context of my research where I have witnessed how people grieved over loss of crops due to typhoons and floods and almost despaired at having no other alternative sources of living, I considered the idea of a crop- livestock integration in order to eliminate the dangers associated with the uncertainties of weather. Being an animal nutritionist, I had an initial interest in raising goats, native chicken or backyard pigs as ways to alleviate the problems of poverty, unemployment and undernutrition among the children of our community.

I hoped that doing animal science research would yield information which could be shared with our people, encourage them in their enterprises, and consequently improve the situation in our community. Indeed, “a mere perception of reality not followed by critical intervention will not lead to transformation of objective reality” (Freire, 1972).
I was hungry and you formed a committee to investigate my hunger; I was homeless and you filed a report on my plight; I was sick and you held a seminar on the situation of the underprivileged; you investigated all aspects of my plight and yet I am still hungry, homeless and sick.

- (Ulbricht, in Guzman et al., 1991:217)

My interest in animal science research rested on its possible relevance to the daily living of the poor. The process by which my thesis evolved from this interest in improving animal production to the ideas of collective learning, common vision and cooperative endeavour in community development will unfold in Chapters 5, 6 and 7.

My initial idea about how to improve the situation of San Fernando was challenged by the question "Do the people perceive the situation the same way as I do?" This research then took an assumption that rural development situations are complex and their improvement should start from the exploration of the heterogeneous needs of the people in the particular context defining those needs through "discourse" (Habermas, 1974), "dialogue" (Freire, 1972) and "debate" (Checkland, 1981).

This led me to a quest for a methodology that would allow various perspectives and interests of the participants to emerge and to be expressed. Coming to an institution which has undergone a great deal of radical change in its approach to education, research and extension, viewing them as aspects of one integrated process in an action research, my quest for an appropriate methodology was not like breaking new ground. A methodology that had been developed (and is still developing) in the Faculty, commonly labelled as the Hawkesbury Spiral (Bawden et al, 1985). The Spiral offered me a whole range of methodologies from soft systems methodology to reductionist science with the choice of a method dependent on the epistemic nature of the problem.
Some aspects of the model of inquiry espoused by the Faculty are that: (1) the researcher becomes a part of the system being researched; (2) the researcher-facilitator and the researched-clientele act together in a dynamic relationship while they collaborate to learn about the same issues; and (3) together work out changes which are systemically desirable and culturally feasible (Bawden, 1990). The development of the methodology for this research inspired me to do an extensive review of action research which is articulated in Chapter 4 along with an account of the development of the Systems Agriculture paradigm.

Systems Agriculture is an integration of agriculture as a science and systems theory. It looks at agriculture as the interface between natural systems and social systems. This has arisen as a response to the inadequacy of the reductionist production-oriented view of agriculture to address rural poverty (Packham et al, 1993). There is a growing concern to see agricultural issues in the broad context of a socio-economic and cultural environment, allowing various perspectives to emerge and eliciting from different stakeholders their issues and concerns. Systems Agriculture is also a learning rather than production optimising approach.

At the very core of the Participatory Action Research that we did was learning with the people. The account of this process, its meaning and outcomes is discussed in Chapters 5, 6 and 7. The Participatory Action Research that evolved in our research process was guided by the Systems Agriculture “spiral” of research methodologies (Bawden, 1985).

Chapter 5 discusses the first phase of the research during which we explored the broad issues of community development and some desirable and feasible changes. There was great enthusiasm for cooperative development. This enthusiasm, however, was challenged by “power” issues: “how can we do it?” since there was no organised group at that moment. We realised that dialogues and the consequent enthusiasm of
the people does not instantly create an "organised group". It takes a much longer process.

In the second phase of the research, (discussed in Chapter 6) while reviewing the interest for cooperative development, we explored some possible technical intervention strategies with an assumed purpose, i.e., increased production and improved productivity to improve the quality of life of the people. The technical issues did not create as much enthusiasm as the broader prospect of cooperative development, which the participants believed was an avenue for a balance of economic and human development.

The third phase of the research (articulated in Chapter 7) engaged us in clarifying the desired change in the context of our possibilities. There was a series of extensive dialogues as we struggled through the legal structures of organizing a cooperative and broke through the feeling of inadequacy and lack of confidence among the farmer-participants. As they reclaimed their self-confidence and learned the mechanics of organizing a cooperative through trainings we offered, a Consumers Cooperative was organized. Initially, The Consumers Cooperative catered to the basic needs of the people helping the poor to make "both ends meet". The story of how the cooperative became an organization of farmers and "professionals" (as farmers call the non-farmers) is told in Chapter 7. Later, in response, to an increasing need for credit, the Cooperative evolved into a small "people's bank".

The entire research was a continuous learning process for the participants. It was enriched by sharing our personal experiences which gave us a sense of collective experience. This gave us a sense of solidarity and collective understanding which created social energies for collective action. This research was indeed an experience of development as a collective learning process and a cooperative endeavour.
The insights I got from our research experiences that is hoped to contribute to public knowledge is discussed Chapter 8. In this chapter I have articulated how through the research process we developed our collective praxis - the collective understanding of the situation and collective action to improve it. Our collective praxis was a cyclical process of theory informing the action and action enriching the theory. This research, while fulfilling its *raison d'etre* of fostering change through action also served as a verification: of the value and usefulness of a Participatory Systemic Action Research; effectiveness of the "Spiral of Research Methodologies" in holding multiple paradigms and viewing a situation through multiple paradigmatic perspective; and the effectiveness of Soft Systems Methodology in systemic understanding of the situation and in fostering debate on feasible and desirable changes. Chapter 8 also articulates what we have become through the process even as we are yet becoming.
INTRODUCTION

This Chapter will introduce San Fernando as a community through some narratives of its people with the guiding questions: what makes the community special; why have I chosen this community for my research; and why of the twenty thousand people and about four thousand families why have I chosen this handful of people and their narratives.

Joy Browne (1976) proposed some criteria for considering a choice of “sample”, which in this case is the selection of a particular community to work with during the research.

To my way of thinking, there are four reasons for choosing one group over the other: the group should be fun, accessible, convenient, and suitable (emphasis added). Fieldwork is exhausting, difficult, psychologically demanding, and time-consuming. The more fun and interesting the group, the greater the likelihood that your interest and commitment will be sustained.

Accessibility is crucial. ... It is impossible to learn very much about a group from a long distance, whether it be physical or psychological space.

Convenience is the key to good research. The more often you can be on the scene, the more you will learn. And the more convenient the group is, the more often you can be on the scene (Joy Brown (1976:72).
In addition to the above mentioned reasons, I chose San Fernando as the place for my research because it was a special community for me. My personal story finds an echo in the story of its people and their story finds an echo in my heart, the story of our quest in making a better life, a better community. It is almost like having the same heartbeat with our people. I can almost say I know its story, its dynamics its dreams its struggles and its possibilities. But more than knowing about it as a community I chose it because of my special relationship with the people because I am one of them. I have a special and deep interaction with most of them either in the barangay, in the school, in the church, in the market place, in public vehicles or just on the road, chatting, listening, sharing stories, doing little favours for each other. As the fox told the little prince (de Saint-Exupery, 1972) “It is the time that you wasted with the rose that makes your rose so important.”

I am presenting San Fernando community through narratives to give it a human “feel”, the expression of a type of research that lends itself to a listening heart and an open mind for new learning.

The role of narrative is to organise and make actual past events meaningful. It is not simply a personal projection that has no relation to worldly events. Narrative is a combination of stories, the telling of them and their meaning. Narrative meaning consists of more than the events alone; it consists also of the significance these events have for the narrator in relation to a particular theme (Polkinghorne, 1988:160).

Story telling, while acknowledged as a process of human inquiry (Reason and Hawkins, 1988), is also the style of communication of the Filipino people. Whether we appeal for help, share our joys, assert an idea or a cherished value we spontaneously express through stories. Telling stories in order to build up a theme, an argument, or an appeal, is not for us a “going around the bush.” For us, storytelling is
a gentleness allowing a greater opportunity to become connected with one another. That feeling of connectedness builds in us a greater trust so we open up, sharing our stories, which someone with a listening heart can understand as our meaning construction of the “world”, of our own “realities”. This sharing was important to this research.

The emergence and development of participatory action research, and systems thinking came about from a critique of science in its “building of abstract theories that often bear little relationship to the real issues of people” (Packham, 1993). Traditionally, science upholds objectivity and distance. It is assumed that if the “Archimedean lever” is long enough we can “move” the world. As argued in Chapter 3, this can hold true in the study of things, but not in study with people. As Max-Neef (1991) argues, “No understanding is possible if we detach ourselves from the object of our intended understanding. Detachment can only generate knowledge, not understanding” (Max-Neef, 1991) Listening to people’s stories can make us understand the things that matter most to them: their “real issues”. Allowing people to tell their stories is an acknowledgment of their being and listening to their voice.

One mark of a liberating process is to help people critically tell their own stories. (Freire, 1970:4).

Where people are not free to speak, silence is an oppression; it is also a violence (Rich, 1977). Freire (1970) also argued, “... the much publicised needs for development can not be realised under the continuing conditions of silence or of an illusory voice. Under such conditions, only modernisation is possible. Thus the fundamental theme of the Third World - implying a difficult, but not impossible task for its people is the conquest of its right to a voice, of the right to pronounce its word” and if I may add, of the right to tell their stories.
An Explanation of Some Terminologies

Throughout this text, I will be using terms which need some contextual understanding such as the following:

- **Barangay** - This is the smallest political unit in the Philippines. Barangays located in the town center, the seat of the local government office, are referred to as urban barangays while the others are called rural barangays. While San Fernando (a district, a town or municipality by political classification) is a rural community it has four urban barangays and 18 rural barangays.

- **Barangay Captain** - is the head of the barangay and the barangay council. It is an elective position for a term of six years. A barangay council functions as the executive, legislative and judiciary for minor civil cases.

- **Barangay Kagawad** - is an elected member of the barangay council.

- **Poblacion** - refers to a town center.

- **Sanguniang Bayan** - refers to the municipal (or town) council composed of the elected municipal Kagawad and headed by the vice-mayor. It is the legislative body of the municipality. The mayor is the head of the town which is composed of 22 barangays.

**THE UNFOLDING OF NARRATIVES**

The narratives in this thesis are a recollection of some of my experiences, my observations of others' experiences, and accounts of some meaningful events in the community. The narratives of these events unfold new meanings when seen in a perspective of research and development. The narratives are supported by data from the socio-economic profile of San Fernando (Callo, 1990) and enriched by this research through its various activities.

The Master gave his teaching in parables and stories which his disciples listened to with pleasure - and occasional frustration, for they longed for something deeper.
The Master was unmoved. To all their objections, he would say, ‘You have yet to understand my dears, that the shortest distance between a human being and Truth is a story (de Mello, 1989:22; emphasis is added).

Drifting with Life

... in Barangay Buenavista. In Spanish this means “good sight to see.” Barangay Buenavista is my barangay located in the poblacion or town center, one of the 22 barangays of San Fernando. It is the place where I was born and where I grew up.

One time when I was having a break from my research work, I decided to go for a bike ride. My nieces and their playmates, when they saw me, gathered around me cheerfully pleading that I give them a ride. “Okay”, I said, “just one by one.” All along the patchy road I had to struggle through the “thickness” of children playing. Everywhere in that stretch of the road, which is about a kilometer long, you would see children playing ... running, shouting, playing, laughing and some would be tagging along a cyclist so that one had to be extra careful. This is the barangay where the presence of children on the streets is outstanding and can not be left unnoticed by anyone going for a stroll or by bicycle or by a car. Children are just carefree on the streets playing. They are enjoying their own world.

If one would listen to children’s laughter, one would wonder why this barangay is considered “depressed” as there is no apparent sign of depression. At about five o’clock in the afternoon when children scatter on the street playing, you could also see a number of students alighting from jeepneys or buses coming from the city, adults coming from offices or from the farms. Those left at home, especially the mothers or the older sisters, would be bringing forth the aroma of the kitchen which gives one an idea about what is being cooked in this household or that. At about this time, you will see people intermingling casually with smiles and greetings (and young people kissing the hands of the older people, especially the relatives).
Buena Vista is considered depressed based on a high number of undernourished children as identified by the Nutrition Council. To address the nutrition problems of the municipality, a municipal nutrition action office was created. This office is staffed by a Municipal Nutrition Action Officer aided by barangay nutrition scholars. In close linkage with other agencies such as Department of Social Welfare and Development (DSWD), Social Action (SAC), Department of Agriculture, (DA) and Department of Health (DOH), the Municipal Nutrition Action Office undertakes various programs as follows (Callo, 1990):

- informal education about nutrition;
- income generating projects which receive some financial assistance from the government;
- Food production;
- Day care service with supplementary feeding.

This fourth service is one which our family once needed (with a feeling of embarrassment on my part). My nieces, the youngest two daughters of my widowed sister who are all living with us, are cute little girls of four and three years old, but they were found to be underweight (falling short of the standard weight for healthy children) so they were classified as moderately undernourished. Every fortnight we receive some skim milk and corn flour as well as the regular feeding program for the nursery children. Once when I went to the Parish Office of San Fernando, I realised that these products must have been donated by the USA as shown by the label on the bags of these products. I wondered if this was a gesture of generosity. I felt a bit of heaviness in my heart as I contemplated the issues of over-population and inequitable distribution of resources, not only in the Philippines, but in the whole world.

Nevertheless, I did not share my feeling with my mother nor my widowed sister for I did not want to demean their feeling of joyful receiving. I also give room for the sincere sharing of gifts, believing that the “joy of giving can only be reciprocated by
the joy of receiving” (if indeed, it is a true generosity!). Moreover, I did not want to make them feel “too rich to receive” as I believe in our calling to build a community where there is sharing of love and goods. As a Parish Advent message in 1991, during the first time I went home for my research: Mayong siisay man na pobre na mayong ikakatao. Asin mayong siisay man na mayaman na daing kaipuhan which means “There is no poor who can not give anything and there is no rich who does not need anything.” So there’s always room for sharing. The said Advent message expresses a broader concept of the rich and the poor. We consider not only the material goods, but the immaterial as well.

Buenavista, it is my safest place even at nights, I can go for a stroll alone, but for more pleasure I go with my younger brothers or sisters or my nephews and nieces. Nothing much had changed in our barangay since I left for a convent life in 1986 and when I returned in 1990. On returning from Australia where I have enjoyed the beauty of “space”, I see Buenavista as an overcrowded barangay. (But in our feeling we are never too crowded). The trend now in housing distribution is such that where there used to be one house per modest sized residential lot of about 80 square meters, now we would have squeezed onto the same plot, one more house for a married son or daughter. I remember my younger brother, married and with three children, who squeezed in to build a small house in our parents’ residential lot, made a joke, “Isn’t it wonderful that not only do people have children, but houses, too, produce baby houses?”

“Blood is Thicker Than Water”:

My frequent visits to Barangay Rizal

Rizal is a barangay close to Buenavista, but if I visit it often is because, my cousin-and-friend, I call Manay Letty, lives there (Manay means big sister). She is a very close friend of mine. We enjoy sharing our thoughts and feelings about love and life,
our life's vocation, our life in our community. Having worked together for the Committee on Worship in our Parish we both had a “feel” for the unity of “temporality” and “spirituality”. How much we wish that the people in our community would always find reasons to celebrate in life and find it meaningful, too, to celebrate the love of God, in the Eucharist.

The two of us have spent much leisure time discussing how we observe San Fernando as a community and sharing ideals and beautiful possibilities. But we realised that we could only dream. But indeed, those were the moments that inspired me to dream to do a PhD research on something that could be relevant to the needs of the people in our community.

Rizal is a barangay named after Dr. Jose Rizal, our national hero. This barangay usually spearheads the commemoration of his death and gives honour to his heroism. Much can be written about him, but I would like to underscore his encouragement (through his writings) for education, particularly of women.

During the Spanish regime, education was generally meant for the ruling elites, the Spaniards and the Spanish mestizos (crossbreeds of Spaniards and Filipinos). But deprivation of education is more strongly directed against women. The Spanish conquistadores tried to epitomise a Filipina in the image of “Maria Clara”: docile, pious, sweet, home-bound. Jose Rizal critiqued this image of a woman in many of his writings and advocated an active role of women not only at homes, but also in shaping the destiny of our country. It must be noted that recent research has generally begun to establish that before the Spanish colonisation, women largely enjoyed the same degree of status, opportunities and prestige as men (Aguilar, 1988). For a long time women were producers, political leaders and warriors. No wonder, that with the uprising of the Filipinos against the Spanish rule, women fought side by side with men (Zaide, 1994). In one of his letters to his sister Jose Rizal wrote: “Study well. Life goes well only to those who have wisdom and heart” (Zaide and Zaide, 1984).
It is also in this barangay Rizal live the family I admire for their pursuit of education. I remember, my father and my mother used to recount to us that the Claveria family used to be a poor farming family, but with hardwork and diligence all the children were able to finish a degree. One of them became my teacher in elementary school. Now, the eldest of the children has become a District Supervisor, an educational leadership position admired by many.

Here, too, in this barangay lives my grade school friend, Sis Amve (Sis, for a sister and Amve as a fond name of Salve). Sis Amve got married while still very young to a very young man, Arthur, from this barangay. Both of them were just in the high school at that time. I remember, when she cried saying good bye to us, her friends, I could sense that it was not so much anxiety of marriage, but that she would be missing the “carefree” life of a high school student and her friends. The wedding was such a grand celebration! One would not expect it to be less as the groom was the first son (to get married) of a rich landlord in Rizal. The majority of the farmers in our community as in the entire Philippines would only own about a hectare of rice land. Arthur’s father was managing about 40 hectares of irrigated rice land. (Please note that this event happened in 1970 when the Comprehensive Agrarian Reform that ensured distribution of rice lands to the tillers was not yet implemented). In addition, his family was also in rice and copra trading. The recollection of this story was just at the back of my mind when I happened to interview Arthur on his perceptions on Farming Systems (which will be discussed in a later chapter). Rice farming then, Arthur recalled, was such a very viable enterprise. “But not today, anymore”, he underscored. He attributed the decreasing viability of rice farming to some factors such as: increasing cost of living such that one or two hectares of rice land would no longer be sufficient for a decent living of a family; there is increasing expenses for pesticides and fertilisers such that a farmer is extremely lucky if he harvested enough for the rice consumption of the family; and there has been a big change in our rice industry particularly here in our province where Chinese businessmen control our rice industry. He concluded
with a sad tone, “Actually, if only I could find another job, I would quit farming.” With a gesture of approval from Sis Amve, he said “I’m really hoping for any job in Saudi Arabia. Hopefully, with ‘dollars’ we can afford a college education for our children.” In almost a “duet” the couple asked me, “Isn’t it much better to finish a degree to establish a better life?” While I tried to affirm them in their desire for a good education of their children, I congratulated them for being blessed with beautiful children. The eldest daughter who is now in college is a promising youth leader. She is active in “youth encounter programs” and in the “music ministry” of our parish. On semestral breaks, she also does some part time jobs such as promotional sales so she can help her parents.

But let’s move now to the next barangay ...

Barangay Del Pilar: the “Information Center”

This is not an official title for this barangay, but it is in this barangay where you find the “information center” that Bród Awe, a community member and his peer group constructed a waiting shed. It’s a fond place to go - to wait for jeepneys or busses (because the national highway traverses this barangay), to while away time keeping up-to-date with what's going on in our community particularly local politics or what number has won the lottery, commonly called jueteng. Here people enjoy playing guitars and singing popular music with friends.

One thing I never fail to notice is the daily sight of unemployed people in this “information center”. Certainly, they are not at all unsightly, particularly as you engage in a chat with them having sensible talks about life in the community. They can make one’s waiting for a public vehicle enjoyable by such a lively chat. But knowing them as those who have gone to Universities and finished degrees like commerce, accounting and political science, I find it quite disgraceful that they are
idle. But of course, unemployment is not just a problem in our community, it is a widespread problem in the Philippines. We are turning out more graduates than can be absorbed by the government and private entities for employment.

As is true generally with Filipinos, they find humour in difficult or embarrassing situations. Brod Awe and his peer group have popularised a phrase which says “why worry, when you work you eat, if you do not work you also eat, then why should you work?” They are not really delighting in idleness, but their byword is just ‘making the lemon sweet’. Superficially one can get different impressions about this group of unemployed, or wonder whether they don’t get bored being idle, or don’t they have dreams to pursue in life. But I sense that idleness is not the lifestyle they like, they have beautiful dreams in life. They have tried to find a job, but opportunities seem too elusive for them.

The unemployment problems trigger questions about the relevance of our present educational programs. Generally, it prepares graduates for seeking employment, but does not prepare them to create their own jobs. Fortunately, there is now a growing trend for developing entrepreneurship in agricultural education, industrial arts, and engineering. But that opens up another challenge: do we have a strong support structures for such a program?

Despite the unemployment problems, Brod Awe and his peers still maintain a happy disposition in life. They love music and they organised a VISION’s choir that enlivens our Eucharistic celebration with their songs of praise. Although it’s seasonal, these ‘unemployed’ also engage in buying and selling of rice.

In this barangay, you will also encounter Ipe, the butcher. He was my classmate in elementary school. Before settling in butchering pigs, Ipe used to work with ALATCO, the only bus line serving the people of our province at that time when we were yet in high school. At that time, finding a job was quite easy, so Ipe, despite being only 14 years old (and of course his father was also an employee in that bus
company) managed to get a job. But with the closure of this company, Ipe had to find another means of livelihood: slaughtering of pigs. He does not rent a stall, for he started this livelihood earlier before the 8-stall market in our town was constructed. Ipe would just get a modest sized table and place it on the side of the road. In about one hour or two the meat would all be sold to the people of Del Pilar and Buenavista. For Ipe, this is a very good livelihood as it ensures not only some cash income, but protein sufficiency for his family.

Barangay Bonifacio: the Forbes Park of San Fernando

Forbes Park is a place in Manila where many of the Filipino elites live. Correspondingly, Bonifacio is a place where most of the rich people of San Fernando live. What we call rich in San Fernando is not really as rich as rich people found in the cities. But because in the entire Philippines there is such a huge gap between the rich and the poor, our people are sensitive of the concept of economic status, labelling those who are better off than themselves as the rich.

Actually, it is in Bonifacio where most of our rare professionals live: a couple of lawyers, a couple of medical doctors, the first PhD in our community, and there are quite a number of engineers.

It is in this barangay where you find our local government offices: the municipal government and the Association of Barangay Captains (ABC) and important offices of National Service Agencies like the Rural Health Unit, Department of Social Welfare and Development, Department of Agriculture and Department of Agrarian Reform. It is also here you can find the Rural Bank of San Fernando which is owned and managed by a private corporation. One family member of this corporation lives in barangay Bonifacio.
Barangay Bonifacio is named after Andres Bonifacio, one of the most well-known revolutionary leaders who fought against the Spanish rule. His wife, Gregoria de Jesus was herself a revolutionary. The battle cry of the revolution led by Andres Bonifacio was *Kung hindi tayo kikilos, sino ang kikilos? Kung hindi ngayon, kailan pa?* which means “If we are not going to act, who will act? If not now, when?” This is a battle cry for action and urgency.

This battle cry was echoed once again when the young people were demonstrating against the dictatorship of Marcos, but has died down now that we have restored democracy in the Philippines.

This battle cry is meaningful for me not only in war, but also in time of peace. It is a calling to all who are involved in the problem situation to be responsible to do about it. And the time to act is now.

NOW, when the problem situation has been understood,
NOW, when desirable changes have been agreed,
NOW, even when things seem too difficult, but when we still can see the flicker of hope for dreams to be possible,

NOW is the time to act.

**Barangay Pinamasagan:**

*Where there is quiet, beauty and repose.*

This is the place that makes me nostalgic; the place where one can feel close to Nature, a place of refuge. When my father could not work as a carpenter and had no cash income we would not survive in the town center, our family moved to this barangay. At that time that we experienced hard work and food shortages especially when we were establishing the root crops and vegetable farming under the coconuts. It
was the time, too, that I enjoyed the togetherness of our family and the beauty of our collective efforts on the farm.

This barangay has an elevation level of about 150 to 180 meters above the mean sea level. This was not really high enough to be called a mountain, but we call it so. Calling this place a mountain is not a technical error as much as an expression of a lifestyle the people from coastal areas have which is different from the lifestyles of those on the lowlands or the plains.

The rhythm of life here is more attuned to the rhythm of nature. As the light of dawn breaks through the clouds you will see people going to the coast and waiting for the motorised banca that transport passengers and goods to the neighbouring town of Pasacao. Others would be on their way up the hill to start the day’s work. Or other people just go for an early morning stroll by the coast and enjoy what we believe to be a therapeutic sea breeze. In summertime, people can enjoy an early swim before working or before the children go to school which starts at 7:00 o’clock in the morning.

In the evening you still can hear the ripples of the sea orchestrated with the sounds of the birds and the insects and the frogs. With this, blends beautifully the choir of the youth, who in their pastime after work or study would play guitar and sing their favourite songs. In Pinamasagan and in other barangays in the coastal areas, life is simple and beautiful (especially when the catch of fish is plentiful).

This is just a glimpse of San Fernando like going on a tour. But let me give you a deeper view by going to visit some families.

Kagawad Morato and his family live in barangay Grijalvo. I came to know him through my research. His participation in this research has been outstanding and our interaction has gone beyond the confines of workshops and dialogues as he would usually volunteer to give my letters of invitation to prospective participants. One time, instead of waiting for him to pick up the letters I went to visit his family. When I saw
his house, I was so impressed, not because it was a big house, in fact, it was like a
shanty, but an outstanding contrast to his personality: from that leadership and
cheerful disposition you would not think he was a poor man (poor in our common
usage of the term).

True, as Bedi (1991) observes that among Asians poverty and pride can coexist and he
wrote:

The great mistake that a person (non-Asian) can make in Asia is to think that
poverty and pride can not coexist (Bedi, 1991:163).

Contentment ... has two aspects in Asia: social and individual. One is taught to be
content in life... the notion that economic progress should lead to greater individual
happiness is a Western concept. The Asian belief is that happiness comes from
submerging one’s self-intent in that of the group, such as the extended family, or
by discovering it from within oneself (Bedi, 1991:11).

It was about midday when I visited them. Kagawad Morato was in the barangay center
busy preparing for the barangay fiesta in honour of San Isidro Labrador (patron saint
of the barangay). His wife was gathering some dried twigs for firewood, hurrying up
to cook for our lunch. “Don’t bother”, I told her. “Oh no” she said. “it’s our pleasure
and we can not let you go without having anything at all.” So I stayed a little while.

Through our conversation I learned that his family owns no land to till, not even the
lot where they have built the house. I tried to hide my feeling of surprise (for how do
they live? - they have no land to till, his wife is not employed, the children are still
dependents although the two eldest have already finished high school and trying to
find a job in the city).
“Oh so you have two children who finished high school already”, I tried to underscore it as an achievement of the family. “Oh yes”, Kagawad Morato responded. “But one thing that concerns me more is the aspiration of my daughter. I don’t mind so much about my son as he himself decided just to finish high school and that’s it. Very soon he is going to get married and that is what I’m concerned about. You know that parents are responsible for the wedding of their children. Actually, these days I have been thinking of how I can earn some money for a college education at least of our second daughter who is so interested in studies and performing quite well.” “What do you think, you’d like to do?”, I asked. “I’m strong and still a young man. I’m just wondering if I could buy a pedicab (a bicycle with a little ‘side car’ which can accommodate 2 to 5 passengers). Unfortunately we don’t have any saving and to think of borrowing, hmmm ... ” (and he stretches his arms as if trying to regain some strength of organising his thoughts of exploring possibilities).

It was like a perfect coincidence. My friend in Naga City was wanting to sell her pedicab. So I told Kagawad Morato of that possibility of buying it from her. His eagerness to pursue it which was like an expression of a dream already being fulfilled had energised us to explore possibilities. We had agreed that he would buy the pedicab from my friend with money that he would borrow from me and he would pay me by weekly instalments which he will get from its earnings. (A pedicab is about 3,000 pesos or about 165 Australian dollars).

This is not to make a grandiose account of a little help I have done. But somehow, it led me to question the priorities for community development. Of course, we need roads and bridges. But I fancy calculating 9 million pesos for a bridge - if it would be allocated for a livelihood project for which 3000 pesos would already be a good starting capital. . . it could support 3,000 families which is 83 percent of all households. It’s just like supporting all families of the whole town of San Fernando! Let us leave this issue, meanwhile and have a quick visit to ...
Aga-pito (morning-seven as he fondly introduces himself, a literal translation of his name). Agapito and Mameng live in barangay Pamukid, the biggest of all barangays in San Fernando. A political candidate usually feels secure if he or she is strongly supported by this barangay as it has the biggest electorate.

This young couple earn their living by managing their own sari-sari store (a small shop selling variety of goods). As they see it, their earnings from this small sari-sari store are not sufficient as they have to buy almost everything. “Buying almost everything” is a common expression which means they have to buy even the rice because they are not rice farmers.

With two lovely kids, these young couple are just so motivated to secure their family with a good future. They are raising pigs in their backyard for a “piggy bank”. Although they do not intend to raise so many as they live in a barangay center, they hope to maintain at least one sow and hope to have some sales of piglets.

Meanwhile, Agapito is finishing another degree in education. He has actually finished a Bachelor Of Arts in political science, but he thinks, there is more demand for teachers. He hope to get a teaching job in the barangay high school in Pamukid (or somewhere else).

While this couple is busy with their own livelihood activities, they are also active in “marriage encounters” (a program aimed at improving marriage and building happy families) and in participating in this research. In between family life, livelihood, marriage encounters and studies, Agapito still finds time for our workshops and dialogues. He said, “It’s very inspiring to work with and for our community while we pursue our own needs for the family. Is it not true that there is always time for everything?” “Certainly!” I affirmed. And Mameng smiled with a wink in her eyes.

Then at this point of my writing I pause and reflect
There is an appointed time for everything,
and a time for every affair under the heavens.
A time to be born, and a time to die;
a time to plant, and a time to uproot the plant
... a time to be silent and a time to speak ...
(and if I may add, a time to write).
(Ecclesiastes 3:1,2,7)

Lest I would go on and on with a hundred more narrations and drift away from the core essence of the context I am presenting, I pause, in a time to be silent. Then like a spring of water that gush forth from the ground, the memories of them came forth alive in my heart, in my mind:

the expression of their despair and hope

of their failures and the courage to try again and again.

of their nightmares and dreams

of the sense of powerlessness and the hope to be at least in control of their own lives.

THIS, is the spirit I could sense from trying to beat with the heartbeat of our people.

In the following section I will present some facts and figures about San Fernando, keeping in mind the balance of “clarity” and “depth” (Ricouer, 1981) or that of “expression” and “explanation” (Reason and Hawkins, 1989). In order to balance clarity and depth in presenting the context of my research, I shall weave some facts based from the municipal socio-economic and physical profile of San Fernando (Callo, V., 1990) and some impressions about them.
FACTS AND IMPRESSIONS OF SAN FERNANDO

All too often, we think, we are describing the way things are, [but] we are merely tracing through the frame through which we look at it. (Wittgenstein, in Veronica Brady, 1994:9)

An Overview

The Philippines has 13 regional (or ethnic) divisions, with Region 1 at the North and Region 13 at the South. Region 5 (or Bicol) is composed of six provinces, one of them is Camarines Sur. This province is composed of 37 municipalities (or districts or towns) where San Fernando is one (Figure 2.1).

By income classification, San Fernando is a sixth class municipality having an annual income of about one million pesos (about $58,000 AUD). There is a land area of 8,737.48 hectares. It is easily accessible by land or air transport, being on the National Highway and only about 20 kilometers away from the Naga City Airport. Its economic activity is largely agricultural. Rice farming provides a living to the great majority of workers and it is also the main source of income for 41 percent of all households.
Figure 2.1. Map of the Philippines showing the relative location of San Fernando.
One attraction of San Fernando is its country setting, especially in its southern part where one can find beautiful beaches. Notwithstanding the progress of electrification, it still retains its rural lifestyle. The people are generally cheerful, warm and friendly.

San Fernando was established as a town in October 2, 1810 when the Philippines was still under the rule of the King of Spain. The town was named in honour of “sovereign Lord Ferdinand VII.” Despite having been under the Spanish rule for three centuries we have kept our Bicol dialect intact (as is true with many other dialects). In the schools, we use English as our medium of instruction, the language for official communication, but outside the formal circles, we speak Bicol: ‘lengua de la casa’ or the language spoken at home.

About 99 percent of our people are Catholics. So it is not surprising to observe our fiesta (or festive celebrations) in honour of our saints. These are important occasions to consider. Some people would consider other appointments a second priority if it coincided with the fiesta.

The Place

San Fernando is located about 400 kilometers south of the Philippines’ capital city of Manila. By air, it’s about one hour travel while on land, because of the bumpy roads, it may take about 10 to 12 hours by public bus.

Our town is not easily noticed by travelers. There is nothing that can call one’s attention (except when one had a special relation to our community) like a bus terminal, or some restaurants for coffee breaks or meals or a petrol station or any related transportation service. When someone from another place asks me “Where do you live?” I have to be sure that I say, “San Fernando, province of Camarines Sur” or he or she might think, it’s San Fernando of either Pampanga (the province where we
had the American air base) or La Union (a province in the northern region where the late President Marcos came from).

Way back in the 1960s and until about the mid 1970s, travelers that passed by our town would know even if they would not see the place in the darkness of the night (for then we did not yet have electricity outside the cities) that it must be San Fernando because of the smell of the carabaos (or water buffalos) which are usually tied in the fences or the houses. It’s like travelling by train from Richmond to Sydney and passing by the mushroom area in Mulgrave. Somehow being identified with this mark of a farmland and with a feeling of being despised because of the stings, coupled with the push of the government, the rice farmers of San Fernando shifted to mechanised farming and the carabao population began to dwindle. Now it’s rare for anyone to hear the morning alarms of the carabaos. It was in the early 1980s when the agriculture sector realized the need to revitalise the carabao industry.

Our land slopes from an elevation of half a meter on the lower portion (the barangays on the northern part of the town: the poblacion and neighbouring barangays) to 20 meters above the mean sea level on the southern and western part of the town. The coastal barangays in the south, located on the hills measure an elevation that varies from 150 to 180 meters above mean sea level.

On the plains rice is grown while on the hills coconuts and some root crops are grown. I remember talking with the Municipal Development Officer of San Fernando, during that time when Ormoc City (of the Visayan Islands in the south of the Philippines) has just experienced a devastating flood in 1991. He shared his personal opinion about our vegetation. He said that it could have been better if we had maintained the rainforest, not clearing for planting coconuts. He seemed to imply that it was the Spaniards who were interested in coconuts, who encouraged its production in the uplands as well as maintaining the rice production in the lowlands. Of course there could have been other factors that contributed to the present status of our vegetation. But certainly, it had a
long history, and would take another long history for any change in the perennial vegetation. Doesn't it take some decades or even a hundred years to grow a tree?

Our town, particularly its lowlands is a flood prone area together with its neighbouring towns. It seems that development planners recognise that one strong constraint in the development of the Bicol Region, is the frequent floods and typhoons. Accordingly, a development program, then, called the Bicol River Basin Development Program (BRBDP) was designed and implemented with the goal of developing the Region, but most especially the flood prone areas. One of its component was the construction of a dredge canal that cut through the low-lying areas and opened them up to the San Miguel Bay to drain the floods. Unfortunately, the program has phased out after twenty years, yet the dredge canal did not turn out to be an effective drainage at all. There is silence about this, but the people in the locality, and even some people who have worked with the BRBDP, could sense the huge amount of resources that were lost in the “channel” such that the construction was below the standard of specification especially its width and depth.

Thus, San Fernando remains a flood-prone area. It is also along the typhoon belt! Every year we have typhoons. Call it resignation or gentle heartedness, but these calamities seem to have become accepted as a part of our life. These calamities and other difficulties of life have somehow developed in us the character of resilience, of good stamina.

The typhoons usually last from about 5 days to as long as 8 days. The speed of the center wind varies from 35 to 270 kilometres per hour. Usually, there is a time that you can feel the strongest hit of the typhoon and it can last for 10 hours. If it happens in the evening (most often it does), it could be a sleepless night for many people sensing the terror of the wind ... praying that at least the house be not destroyed, rooftops or windows blown away.
When the typhoon is strong as predicted by the Weather Bureau, some people will secure their houses, nailing wood pieces to lock the doors and the windows, put weights on the rooftops and getting ready to move out, find a stronger house and a welcoming spirit of their neighbours. In the hills, the people would try to save some crops. They could hurriedly trim down the leaves of the bananas and cut down the branches of cassava to save them from being uprooted. When the typhoon is over and the family is safe, we still could pray with grateful hearts, that at least no one was harmed.

To face the aftermath: the damage of crops and loss of animals is another challenge to many farmers. This is one reason why farmers would like to go for government employment (if only they can) because as they SAY, “The salary is never damaged by typhoons nor floods.”

The planting calendar developed by the Department of Agriculture generally considers not only the amount of rainfall, but also the likely occurrence of typhoons. It would be better if typhoons coincide with land preparation when the damage would be less. However, there’s no way to predict the exact date when it will occur. The months of August, September, October, November, December and January are considered typhoon months. Five months is a long period for a farmer to wait. We have a popular saying: “Matakot ka sa doron mayo kang aanihon” which means, “if you become afraid of the locusts you will harvest nothing.” One reaps nothing for not taking any risk. If one harvest is lost maybe next time it will be recovered.

Because of the typhoons every family would wish to have a concrete or semi-concrete house: at least with galvanised iron roofing and concrete foundations. However, of the 3,476 houses reported, only 160 of these fall under this category, which is less than 5 percent of the total. Finding some ways of feeling the pride of a home even if it’s just made of wood or bamboos or even a makeshift we used to say, Malaki man ang palasyo kung ang nakatira nama’y kuwago mabuti pa ang maliit na kubo kung...
ang nakatira nama'y tao. This means that “though how big a palace is, if what you find is an owl (that can just stare at you and welcomes you not), it's better a nipa hut where you can find a (lovely) human being.” Generally, we take more pride in our warm hospitality than in the beauty or strength of our houses.

Notwithstanding the floods and typhoons we still enjoy an almost stable temperature throughout the year with an average temperature of about 27\(^\circ\) C. The average lowest temperature is about 20\(^\circ\) C while the average highest temperature is about 34\(^\circ\) C. Our colder months are December, January, and February while the warmer months are April, May and June.

By rainfall types, San Fernando is characteristically humid where rain is well or evenly distributed throughout the year with about three dry months February, March and April with an average precipitation of 89, 52, and 70 millimetres respectively. The average precipitation during the rainy months of June to January vary from 165 millimetres in January to as high as 340 millimetres in October. The heaviest precipitation is usually observed in June which has also the most number of rainy days, an average of 17 days. March is considered the driest month with the least total precipitation and the least number of rainy days, just about 7 days.

**The People**

We are people who love celebrations! We find it easy to find a reason to celebrate -

- a visit of relatives,
- an encounter with long lost friends,
- passing examinations,
- birthdays and wedding anniversaries. It is still common to find some couples celebrating the golden anniversary with a renewal of marriage vows and a big banquet just like 50 years before!
- finishing a school year,
- feast days of our saints
• or reconciling relationships

• and most especially Christmas and Easter!

We also love songs, dances and banquets especially for big celebrations. We also believe that a banquet in a celebration is a way of sharing our gifts with friends. There can be many days of feeling "poor", but in a festive celebration we feel that "the harvest is bountiful" "the fruits of our labor can still overflow"! We also feel that the greater the number (of people) the merrier the life could be.

I remember one Spanish missionary who had lived in the Bicol Region (to which San Fernando belongs) for about 15 years observed in her missionary work that one can easily relate with the Bicolanos (the people of Bicol) if he or she can sing or dance for they just love dancing and singing. Community workers must have to learn to sing and to dance to stir a friendly and lively discussions and dialogues.

We usually would start our workshops and dialogues with action songs, very fitting for an action research, just as we act what we sing and we sing what we act.

My supervisor had to grapple with our songs and actions when he participated in our workshop. Maybe he could miss some words ...

Kumusta ka? (How are you?)

Tayo ay magsaya (Let us rejoice)

Umikot nang umikot (Turn around)

at humanap ng iba (and find another friend) to greet Kumusta ka?

... but certainly when in a group we all sing and dance it gives us the "seed- feeling" of friendship and solidarity.
Our population by gender and age group

The population by gender and age group is shown in Figure 2.3. San Fernando has a total population of 20,778 as of 1989 statistics. Interestingly, the population is slightly higher in males. This pattern is consistent with the national statistics on population which shows that male population is higher than female population in the rural areas, while female population is higher in the urban areas. This might be due to the type of work available in the rural areas and gender preference for it. In the rural areas one could work in a farm which is generally the work for men. And so, the women would rather go to the urban areas for some jobs like shop keeping, office secretarial, domestic help, or factory work.

Our population is characteristically young, about 55 percent is 19 years old and younger. This produces what is called a “bottom heavy” population pyramid as shown in Figure 2.3. A bottom heavy population indicates a smaller proportion of economically active working group. This also indicates a greater dependence and heavy burden to the supposedly working and earning group.

San Fernando has a total of 3,591 households. This is not equal to the number of families as there can be one, or two families in a household. Or, there can be more than one household in a house. A household as used in this data is one or more families cooking together (as we would say it, in “one pot”). Our town has an average household size of 6 family members. The population density which is calculated as number of people per one hectare is 2.38. Or, there are 238 people in 100 hectares.
Figure 2.3. Population pyramid: by gender and age group, of San Fernando, Camarines Sur.

If I have told you about this details ..., and made a note of its number for you, it is on account of the grown-ups and their ways. Grown-ups love figures. If you were to say to the grown-ups: "I saw a beautiful house made of rosy brick, with geraniums in the windows and doves on the roof," they would not be able to get any idea of the house. You would have to say to them: "I saw a house that cost ($500,000)." Then they would exclaim: "Oh, what a pretty house that is."

- (de Saint-Exupery, 1972: 15; the figure for the cost is my revision)
Migration and Mobility Pattern

San Fernando is characteristically an outmigration area. There are more people going out than coming in to the municipality. Considering that San Fernando is a rural community, this social phenomenon may not be very surprising. There is a general movement of population all over the country from rural areas to urban areas and from smaller urban areas to larger urban areas. The movement is caused by a search for “greener pastures”: the quest for better education, employment opportunities and social tranquillity (especially at the height of the “New Peoples Army”: the leftist rebellion).

While San Fernando is characteristically an outmigration area, the majority of our people are “residentes propios”, people who were born in our town and have been living there. One can visualise a kind of gentle rhythm of life for many people. We have a big core of population seemingly undisturbed by the movement and mobility by its peripheral population.

Literacy

Literacy as used by Callo (1990) refers to as the ability to at least read and write simple messages. Hence, those who are able to do so are considered literates. The data on literacy rate was taken from the age group of 7 years old and over. This is the age when it is socially expected that a person begins to read and write as this is the age for entrance to the first grade in formal schooling. With this basis, the people of San Fernando recorded a literacy rate of 98 percent. The educational attainment by gender is shown in Table 2.1
Table 2.1. Level of educational attainment by gender.

<table>
<thead>
<tr>
<th>LEVEL OF EDUCATION</th>
<th>MALES</th>
<th>PERCENT</th>
<th>FEMALES</th>
<th>PERCENT</th>
<th>BOTH GENDER</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entered Elementary</td>
<td>3046</td>
<td>21.27</td>
<td>2776</td>
<td>19.39</td>
<td>5822</td>
<td>40.66</td>
</tr>
<tr>
<td>Graduated Elementary</td>
<td>2025</td>
<td>14.14</td>
<td>2110</td>
<td>14.74</td>
<td>4135</td>
<td>28.88</td>
</tr>
<tr>
<td>Entered High School</td>
<td>941</td>
<td>6.57</td>
<td>952</td>
<td>6.65</td>
<td>1893</td>
<td>13.22</td>
</tr>
<tr>
<td>Graduated High School</td>
<td>664</td>
<td>4.64</td>
<td>673</td>
<td>4.70</td>
<td>1337</td>
<td>9.34</td>
</tr>
<tr>
<td>Entered College</td>
<td>307</td>
<td>2.14</td>
<td>326</td>
<td>2.28</td>
<td>633</td>
<td>4.42</td>
</tr>
<tr>
<td>Graduated College</td>
<td>189</td>
<td>1.32</td>
<td>310</td>
<td>2.16</td>
<td>499</td>
<td>3.48</td>
</tr>
<tr>
<td>TOTAL</td>
<td>7172</td>
<td>50.08</td>
<td>7147</td>
<td>49.92</td>
<td>14319</td>
<td>100</td>
</tr>
</tbody>
</table>

It can be noted that with increasing level of education, females are achieving relatively more than males. There are more female graduates from elementary, secondary and tertiary educational levels than males. Considering the educational attainment of both genders, it can be noted that the greatest portion which is about 70 percent of the school age group and older has just finished elementary. This is the great majority who can not even afford a high school education despite being free of school fees. But of course going for studies is not just spending for school fees, but also for accommodation, transport, uniforms, books, school supplies which are not covered by the government subsidy. Only about 8 percent are able to finish a first degree. The trend of decreasing number of graduates in the increasing level of education is also evident.
The Out-of School-Youth

Of the youth sector, there is a group, we call OSY (or out-of school youth) that usually earn a special consideration for any development program. These are the young people who are supposed to be at school, but some factors constrain them.

With the data on the distribution of out-of school youth, the school age group is arbitrarily set at 7 to 21 years old. Seven years is the age for entrance to the first grade and about 20 or 21 years old to finish college.

San Fernando has a total of 7,905 school-age population. Of these, 4,608 young people (or 57.72 percent) are attending schools and 3,375 of them (or 42.28 percent) are out of school. Considering the dearth of job opportunities for this sector, a high percentage of out of school youth can be a serious social problem. Fortunately, drug addiction and alcoholism are not problems for the youth in our community despite being out of school and being unemployed. But the high number of OSY itself indicates the poor economic situations of families. Generally, we value education. As much as possible, the people of our community would try to get the highest education possible for them. We believe that life promises a brighter future for the educated people.

Some of the reasons reported for not attending schools are:

1) They have to work and earn some money to help the family;
2) They have to help in the house, more likely looking after the younger brothers or sisters especially if the mother is also working. This is especially true for females;
3) They have to help the father in the farm. This is usually true for males.

Our Livelihood

In our community as it can well be true all over the Philippines, if you ask, “Anong trabaho po ninyo? (what is your work)” or “May trabaho po ba kayo? (have you got
a work)" or "Nagtatrabaho po ba kayo? (are you working)", in how ever way you frame the question, the concept of work is highly associated with employment in either the government agencies or private entities. But if you ask "ano po bang hanapbuhay ninyo? (what is your livelihood or how do you earn a living), then the concept broadens to all economic activity from which they earn "bread". We use the English term "bread" mixed with our language or dialect, but use it in our idiomatic sense to mean either food or cash or both (although more commonly meant as cash).

The livelihood of the people in our community is largely of self-employment. (Self-employment is used to mean any livelihood besides being employed in the government or private agencies). Only about 10.6 % of the work force are employed in either the government or private agencies while about 89.4% are self-employed. Table 2.2 shows the livelihood activities of the people.

Table 2.2. The distribution of labor force by type and status of employment.

<table>
<thead>
<tr>
<th>Employment in Government or Private Agencies</th>
<th>Self-Employment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent 456</td>
<td>Rice Farming</td>
<td>3005</td>
</tr>
<tr>
<td>Temporary 301</td>
<td>Coconut Farming</td>
<td>504</td>
</tr>
<tr>
<td>Sub-total 757</td>
<td>Hired Labor</td>
<td>1530</td>
</tr>
<tr>
<td></td>
<td>Fishing</td>
<td>282</td>
</tr>
<tr>
<td></td>
<td>Small business</td>
<td>1053</td>
</tr>
<tr>
<td></td>
<td>Sub-total</td>
<td>6374</td>
</tr>
<tr>
<td>10.6%</td>
<td></td>
<td>7131</td>
</tr>
<tr>
<td>47%</td>
<td></td>
<td>89.4%</td>
</tr>
<tr>
<td>8%</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>24%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Most of those who are self-employed are engaged in rice farming. If we sum together the percentages of those engaged in rice farming, coconut farming and hired labor
(which is generally for rice or coconut farming) it would be about 79%. This is the percentage of those self-employed who are engaged in agricultural activities. This group of the “self-employed” represent those whose earnings are not shielded from the damage of typhoons and floods. During these natural calamities, they lose their earnings. The few minority who work in the government or private offices would continue to earn a living whether it rains or it shines, whether it floods or it storms. Most of those who work as hired labor do not own a land to till, so they earn a living by working in other farms.

The rate of unemployment

Callo (1990) considered the age group of 15 to 65 years old economically active. The number of unemployed is calculated as the difference of the number of the economically active group and what is considered having a livelihood. With this basis we have 45 percent unemployment which is rather very high.

Household Income

The data on household income indicates the standard of living of a family and the community at large. With this data I do not mean to underscore the poverty incidence in our community. For one thing, poverty is relative. Even the categorised “poor” by the measure of income, apparently have no complaints of their situation. As long as there is always food at the table at meal times, or as we used to say: “there is a roof over our heads” and “we are not without clothes”, ayos pa rin ang buhay which means, life is still okay. We also have a popular saying which is comforting of our situation: Mahirap man basta mayaman sa pagmamahal masaya pa rin ang buhay. This means that “even if we are poor as long as we are rich in love, then our life would be a happy one.” Whether it indicates a “sweet-lemoning” attitude, resignation or complacency, it certainly indicates how we generally count on the security we can get from a family solidarity and caring. As long as there is a family member earning
enough for the needs of the family, then household income is not a sensitive issue. We have an unspoken slogan: “one for all, all for one”, reflecting a richness of a *damayan* or mutual caring spirit.

Despite, this argument on relativity of poverty, let us have a look at Table 2.3: the average household monthly income. It is estimated that an income of 3,000 pesos (the gross salary of a teacher) for a family of six members would not be enough even for the barest necessities of life - food, clothing, shelter and education.

As can be noted from the data on household income, about 94 percent of all households have an income of 3,000 pesos and lower. This poverty incidence in our community is far higher than the national average of 70 percent (Ibon Facts and Figures, 1991). As Callanta (1987) found out, the incidence of poverty is most prevalent in the rural areas. Even without this data and by just a quick visit, observing the lifestyle of our people anyone can sense that San Fernando is a poor rural community. Not only by considering the household income, but also by the income of our local government posting it as a sixth class town (the lowest class according to government revenues).

Table 2.3. Distribution of households by average monthly income.

<table>
<thead>
<tr>
<th>LEVEL OF INCOME (IN PESOS)</th>
<th>Australian Dollars</th>
<th>NUMBER OF HOUSEHOLDS</th>
<th>PERCENT OF TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1000</td>
<td>&lt; 55</td>
<td>1867</td>
<td>52.68</td>
</tr>
<tr>
<td>1001-2000</td>
<td>55 - 110</td>
<td>1258</td>
<td>35.5</td>
</tr>
<tr>
<td>2001-3000</td>
<td>110 - 167</td>
<td>216</td>
<td>6.1</td>
</tr>
<tr>
<td>3001-4000</td>
<td>167 - 222</td>
<td>96</td>
<td>2.7</td>
</tr>
<tr>
<td>4001-5000</td>
<td>222 - 278</td>
<td>48</td>
<td>1.4</td>
</tr>
<tr>
<td>5001-6000</td>
<td>278 - 333</td>
<td>36</td>
<td>1</td>
</tr>
<tr>
<td>6001-7000</td>
<td>333 - 389</td>
<td>7</td>
<td>0.2</td>
</tr>
<tr>
<td>7001-8000</td>
<td>389 -444</td>
<td>2</td>
<td>0.05</td>
</tr>
<tr>
<td>8001-9000</td>
<td>444 - 500</td>
<td>9</td>
<td>0.25</td>
</tr>
<tr>
<td>9001-10000</td>
<td>500 - 555</td>
<td>1</td>
<td>0.02</td>
</tr>
<tr>
<td>MORE THAN 10000</td>
<td>&gt; 555</td>
<td>4</td>
<td>0.1</td>
</tr>
</tbody>
</table>

(NO RESPONSE)                  |                    | 3544                 | 100             |

NUMBER OF HOUSEHOLDS: 3591
Household Expenditures

Any data on socio-economic profile of any town or barangay would usually include the pattern of household expenditures side by side with the household income. What does it really mean?

As in the case of San Fernando, where 94 percent of the households fall below the poverty line, the pattern of household expenditures portrays further the seriousness of poverty in many rural communities in the Philippines. It portrays outstandingly the reality of “hand-to-mouth existence” of many families. This is a situation where what is earned for the day is just spent for the day’s food and other urgent basic needs.

Actually, as long as the ‘breadwinner’ of the family is healthy and continue to work everyday, the hand-to-mouth existence does not seem to be a heartbreaking situation. If the breadwinner happened to be a hired laborer and he got sick, and there was no wage for the day, as well as no savings that can be pulled out, then the family had to borrow at least some measures of rice to survive the day’s hunger.

When it comes to family survival, when there is a need for food or medicine, that is, when a family is in a serious financial need, it can be a dilemma to borrow or not to borrow money. This dilemma arises because of the difficulty of paying. But, notwithstanding a high interest rate of 5% or even 10% per month (60 to 120% per annum!), the family would still resort to securing a loan. This is the experience of many families in our community. To avoid accumulation of interest rate, the family would try to pay it as soon as possible even if it would mean selling some precious belongings, or mortgaging a piece of land, or selling the farm produce even when the price is yet too low.

The nationwide survey done by the Social Weather Stations (SWS) commissioned by the Agricultural Credit Council of the Philippines (ACCP, confirmed that even at a high 3% interest rate per month, 60% of the respondents would still decide to borrow. Even at a much higher rate of 5% per month, two thirds of those surveyed would still
choose to incur a loan. These results show only one thing: "In the event of serious financial necessity, the interest rate would not matter as long as credit is available" (de los Santos, 1993).

Loans are incurred usually for survival necessities (like immediate need for food, medical care, or for farming that is hoped to insure the food needs of the family). Otherwise, they would rather forego some other needs like education. The pattern of household expenditures is shown in the Figure 2.4.

It is extremely noticeable that the greatest bulk of the family income, which is about 68 percent, goes to food. Sometimes, some people would ask in a kind of chicken and egg question: "do we work to eat or do we eat to work?" It is a question that really needs no answer. It is an expression of the life of many people whose income is just enough for food. If they would eat too little, they have a fear of getting sick and not being able to earn a living for the family. For the great majority of our people, life is like working to eat, eating to live and living to work ... working to eat ... eating to live ... and goes on the cycle.

Figure 2.4. Pattern of household expenditures.
Based from Ibon Facts and Figures (1991) it can be extrapolated that the food threshold is about 1,369 pesos, which means those with about this income would just have enough for food. In the case of San Fernando, 76 percent of its household have income of 1,500 pesos per month or less. This income is barely enough for survival. But certainly, the family would have to spend for other items like family celebration, minimum education of children, repair of the house, medical needs, transportation and communication and other essentials.

What does it mean when a family earns an amount just enough for food and yet still has to spend on some other essentials? Some food requirements are sacrificed.

Let’s hear a dialogue of a mother and a child:

“Nanay” (means Mother) “how many measures of rice shall I cook?” “Three”, the mother responded. “Are we cooking some fish or vegetables?” “Oh no, we don’t have any at the moment” “So what shall we eat with rice?” “Never mind, add one more measure of rice. That’s the thing that we shall eat with the other three measures.”

Or this other dialogue:

“Nanay, shall I scramble these half dozen eggs?” “No, anak” (my child) “just cook three and the other three for the next meal.” “Would it be enough for the eight of us?” “It will, certainly! Just add more salt.”

While it is the responsibility usually of the father to earn a living, it is also the responsibility of the mother to stretch the resources and have ‘both ends meet’ which means that it should not not be finished until at least the next income.

**Our Land and Other Natural Resources**

San Fernando is an agricultural community. A vast tract of its land is used for agriculture. Of its total land area of 8,737 hectares, about 7,597 hectares or an
equivalent of 87 percent is categorised as agricultural lands. Although as of 1989 data, only 3328 hectares are planted with crops. There is an uncultivated agricultural land of 4,269 hectares. The crops most commonly grown are rice and coconuts: rice in the lowlands and coconuts in the uplands. Usually at the onset of the rainy season sometime in May, the coconut farmers wait for the “agua de Mayo” (literally translated as water or the rains in May) so they could plant maize, vegetables and rootcrops.

The residential and institutional land occupies 1.26 percent of its total land area. The very small area of 0.385 which is less than half a hectare devoted to commerce portrays the economic activity of the people: a very minimal commercial activity. In fact, most farmers are “separated from their products” (Hope et al., 1984) right after harvest time either to pay the loans incurred for its production or some other pressing needs of the family. The trading of rice and postharvest business is in the hands of the businessmen, not the farmers.

The separation of the farmers from the land and their produce (or the growth of capitalism) as argued by Hope and co-workers (1984) is one main reason why the poor remain poor. Whether our farmers are aware or not of the larger social structures, they are happy enough to have rice on their tables at meal times.

San Fernando has a total forest area of 1,030 hectares. This is classified by the government as a forest reserve having more than 18 percent slope. Hence, it can not be disposed for agricultural cultivation. Quite ironically, this forest reserve has no reserved forest. Unfortunately, too, there is no on-going reforestation project in the municipality. In 1975, the total forest area was recorded as 2,155 hectares. With the record of 1,030 hectares in in 1989 there is a difference of some, 1,125 hectares. This area must have been cultivated for agricultural purposes.

San Fernando is endowed with not only the beautiful countryside of the coastal areas, but also with the seas teeming with fishes. Fishing is another source of livelihood for
the people especially of the southern part of San Fernando. We have a total of 226 marine fishermen all of whom are fishing at a sustenance level. There is no one in our town who owns a commercial fishing vessel. The number of marine fishermen represents 32 percent of the total working force in the coastal barangays. For a fishing vessel, about 90% of them use non-motorised bancas (or canoe). Only 10% of all fishermen have a motorised banca (of about 12 to 16 horsepower).

The Financial Resources of our Local Government

As of 1989, San Fernando had a total income (from taxes and grants from other levels of the government) of 1,050,880 pesos (or 58,382 Australian dollars with an exchange rate of 1 AUD to 18 pesos).

Just like many of our families, our local government has an income barely enough for the maintenance of general public services (eg. salaries and wages of local government staffs and legislative members). Our local government spends 96 percent of its income on general public services, leaving 4 percent only for education and economic development. Good enough, at least our local government has no standing debt, and expenditure does not usually exceed the income, hence no deficit is incurred.

In 1989, about 145,973 pesos (or 8,110 AUD) was allocated for economic development fund. This amount can build a modest size concrete residential house, but not enough for a modest size market. To have a market in our town has been a dream for a long time of our people and of the administration of the local government. Having a market was hoped to improve the situation of our community. For it means a little business for a number of families that will be able to get a stall in the market and a convenience for some farmers to sell their products. It would also help the people to go shopping in their own locality and not have to spend time and money to go to the nearby city.
In 1993, the local government managed to construct a 12-square-meter mini market with 8 tenants: 2 are selling dry goods (clothes and school supplies), 2 some groceries, 2 some vegetables and the other two some fresh fish and meat. It's a very small market, but for a little shopping for a day-to-day needs, it is good enough. Many people would also consider it as a sign of a progressing community.

Looking at Food Sufficiency:

Crop Production and Animal Production.

The people in our community, as also true with Filipinos in general, are largely dependent on rice for dietary energy requirement. The average yield of rice was recorded as 56 cavans (a bag of 43-50 kilos) per hectare which is lower than the standard of 90 cavans from irrigated and 60 cavans from non-irrigated ricelands.

However, the total yield of 10,128 metric tons of rice could be well enough for the population of San Fernando. Considering a milling recovery of 60 percent it would yield about 6,077 metric tons of milled rice, sufficient enough for 20,778 people, or an equivalent of 800 grams of milled rice per person per day (500 grams per person per day is a very safe estimate for rice consumption).

However, since most farmers sell their produce almost at the very day it is harvested (though keeping some for the family needs), the rice produced from our community goes out of the town. So when the off-season comes, and the price of rice is high, there is no way it can be buffered which otherwise could be possible if we held our produce in our community.

"Reading" this situation of our farmers and the rice consumers, one cooperative operated a palay (or rice) trading, envisioned to buy the rice produced by the farmer-members and hold it until the off-season, and sell the milled rice to the members or even non-members. It's a way of holding the profit among the producers which also
can buffer the unstable price. But because of a limited capitalisation, not much can be stored in the rice granary of the cooperative. Despite its minimal economic activity the cooperative is recognized by its members to have helped them economically, socially and spiritually.

In the entire municipality of San Fernando, there is just one commercial poultry farm, with 1,000 layers and an average production of 700 eggs per day. The chicken are raised mostly at the backyard scale with 5 or even less number of layers.

There is no commercial scale pig farm in our town. Although at the time of this writing there are two pig farms with 5-sow level of operation and that can keep about 20 pigs for finishers, but neither can be classified as commercial scale farms. So, our livestock and poultry production for meat and for eggs is generally on a backyard scale, 1 or 2 heads of pigs or around 10 of chicken and ducks.

Taking the total population by species and by its average finishing weights and average dressing percentages I calculated a possible total yield of 360,057 kilograms of meat. If these were distributed to the whole population, one person can share 47.48 grams of meat per day. This amount of meat could give about 28.50 grams of protein which is far below the minimum protein requirement of 50 grams per person per day. Certainly, there are other protein sources such as fish, eggs and plant proteins. This data indicated how insufficient is our meat supply. This does not yet consider the purchasing capacity of our people, that even if there is enough supply of meat can they buy?

Nutritional Status of Children

The nutritional status is based on the weight of children who are one-day-old to six years old judged according to the standard weight of healthy children of the same age group. With these criteria, the nutritional status is categorised as normal or
undernourished which is further categorised as mild, moderate or severe undernourishment. Using these criteria, it was reported that 79 percent of the children are undernourished, (33 percent moderately and severely undernourished and 46 percent are mildly undernourished).

This information may not be indicative of unequal distribution of resources in the family since children generally receive the most attention and care in the family. Other members of the family can forego their needs to give more favour to the children. The children are generally fed better than other family members. This then would indicate that the income of many families is barely sufficient for the food needs.

**RECAPITULATION**

This Chapter is a brief account of how I see San Fernando as a community, and a glimpse of its people. While I hold in my mind the complex wholeness of my perception about our community, I started to view it through a socio-economic perspective. One interesting thing to note is the hospitality and cheerfulness of the people notwithstanding poverty. This paradox of life indicates the complexity of issues related to community development: “what constitutes an improvement” and “who defines it?”

Starting with contextual grounding is an intent to place the research interests and direction in perspective. This considers that what we do in the world is determined by the way we see the world (Churchman, 1971). Given this specific context, every viewer could have different interpretations (Maturana and Varela, 1988) and likely different ways of responding to the challenges of the situation.

What struck my attention in looking at the situation of San Fernando was the high incidence of undernourished children. I felt that it was not fair that they should not be
sufficiently nourished considering the fact that San Fernando is a food-producing community. Moreover, the levels of undernourishment, unemployment, low agricultural production and massive poverty stirred in me a "gut feeling of unease". As if I could see the people as hooked-in the vicious cycle of poverty in a way I tried to portray in Figure 2.5.

Figure 2.5. My initial perception about the situation of our community.
This "unease" has inspired in me an idea for improving agriculture in our community: an effective crop livestock integration so that if crops are damaged by typhoons or flood, the farmers would still have something to fall back to - the animals in their backyard. It was also hoped that improving crop and livestock production could break the vicious cycle of poverty.

So even before I got the scholarship for the PhD, I was ardently wishing for the chance to do research on small ruminant nutrition especially of goats. My special preference for goats was its being considered a "poor man's cow". Just like a cow it can give milk and meats. But unlike cows, it is cheap to start with and to maintain. I thought, improving goat nutrition would improve its production and I hoped to address our problems of undernutrition, unemployment and poverty.

Later as the community unfolds itself in the succeeding chapters through multiple paradigmatic perspectives, exploring possibilities of improving the situation will be seen to have evolved with the research process.
Chapter 3

Holding Multiple Paradigms

God bless our contradictions, those parts of us which seem out of character. Let us be boldly and gladly out of character. Let us be creatures of paradox and variety: creatures of contrast; of light and shade: creatures of faith. God be our constant. Let us step out of character into the unknown, to struggle and love and do what we will. Amen.
- (Leunig (1991)

It was noted earlier that what we do in the world is determined by the way we see the world (Churchman, 1971). It is what is called paradigm that subtly, but powerfully influences the way we think and act. One thing interesting about paradigms is “they can not be proven or disproven, but they represent the most fundamental positions we are willing to take” (Guba and Lincoln, 1989). As it is a basic belief system, it is not observable, but its expressions are discernible. Oftentimes we only see the manifestations, indications or expressions of these paradigms, and that can make it difficult for us to understand why we think the way we think or act the way we act. Without understanding our basic beliefs (or paradigms) we can go on and on with our way of thinking, our way of knowing, and our way of life without enjoying the freedom of choice: of the way we think, of the way we know, of the way we live.

Chambers (1993) uses the word paradigm to mean “a coherent and mutually supporting pattern of concepts, values, methods and action, amenable to wide application.” Guba and Lincoln (1989) think of a paradigm as “a basic set of beliefs, a set of assumptions we are willing to make, which serves as touchstones in guiding our lives.” Thomas Kuhn (1962) used paradigm in a more restricted sense to mean
"universally recognized scientific achievements that for a time provide model problems and solutions for a community of practitioners"

Our way of believing in all its organized coherency, now what we call a paradigm, has a story of how it came to be: a history. Therefore, to understand a person's paradigm is to understand his/her experiences in life.

As I look back on my personal history, one thing I realize about my life is the complementarity of masculine and feminine energies. This is not a gender issue, but a matter of qualities, of character that is expressed in whatever we do, be it researching, teaching or learning. Experiencing my family's "limit-situation" (a situation where there seems to be no way-out from a heartbreaking situation) and looking at it objectively, logic and reasons might have discouraged most of us in the family to the point of despair and resignation. My father knew his failing strength, my brothers were not yet prepared for any job and we had very scanty resources. It was an experience of utter poverty. But in the midst of this hardship, my mother and I mutually enkindled each other's hope for brighter possibilities beyond.

On the other hand, if we just content ourselves with a good feeling that a positive outlook brings into our hearts, but without a recognition of the "real situation" (which happened to be the strength of my father and my brothers) we would not have been able to deal with it with a better understanding, neither we would have explored possibilities of changing it. This experience has taught me to see the complementarities of seeming opposites, eg., of being a dreamer and being realistic.

My research started within an unarticulated paradigm. I just believed in the power of dreams, the power of thought to negate certain limits, and the power to change our realities. I personally believe that creation is already done while it is yet to be. God calls us to be co-creators of our own realities.
The paradigm I hold and the theories that inform my practice will be evident throughout the whole process of my research. However, at the outset, I would like to express what I believe, which had influenced the whole research process.

I believe that there is an objective world and a subjective world. There is a reality out there and we can know and understand it through our human prowess and human interpretation. The reality out there is not fixed, it is evolving. If we can observe evolution in the physical world, how much more might there not be in the social realities that human minds have created?

My belief that realities can change was not so much a philosophy as it was a firm faith and a strong conviction which initially I was unaware of, but the power was there influencing the depth of my life. In my heart, there was no debate of opposing paradigms: about positivism and constructivism. There was a free-flow of objective inquiry to subjective inquiry in my life. Maybe, spontaneously, we all do this. While we give qualitative description we also try to measure. “I like him, he is handsome and tall.” “They are happy people despite being poor.” “It has improved production, but not the quality of life.” These are but a few expressions about how we naturally inquire in the subjective world and the objective world of our everyday life.

As with Freire (1972), I also argue that to deny subjectivity in transforming the world is to admit the impossible: a world without humans. On the other hand, to deny objectivity is to postulate a reality of humans without the world. The world and human beings do not exist apart from each other, they exist in constant interaction.

There is no one who can deny the fruits of scientific labour: from the increase of production to the increase of life span; from adaptability of a house design to the flight into space; from the comforts of life to an efficient communication system. I would also believe that scientific endeavours have inspired and served the whole humanity.
However, I do realize, despite the many advancements that have been achieved in the field of science, there are still a lot of people in this world suffering ill-health, dying from hunger and miserable in loneliness of isolation (despite easy transport and communication).

With this, I am coming to realize that the conquest of the “world” and the understanding of its laws and the manipulating in favour of humanity is not enough. The humanity which science intends to serve has to be consulted. There has to be a dialogue among stakeholders, an open negotiation of values, interests and concerns. There has to be a re-thinking for a better understanding as to where are we heading.

Doing my Ph.D. research was for me a celebration! It was for me a chance to express my bias and my philosophical position. With Marshall, (1981:399) I also say, “My bias is something I appreciate, it’s a part of me as a researcher. And while it is important for me and for others to recognise my bias, it really is what I can give as a researcher, it is my contribution, and it’s coherent and it’s felt and it has all these other qualities which make me value it more than a detached attempt to be objective. I work from particular positions and I feel that each has its own integrity and its own validity.”

The paradigm I hold is indicated in the dynamic evolution of my thesis: from the conceptualisation of the research proposal to the initial conduct; from the involvement of the people to ownership of the process; from phasing-out this research to writing this thesis.

At this point, I wish to acknowledge, the idea from my supervisor on enriching the title of this chapter, which now reads Holding Multiple Paradigms. This is very reflective of the paradigms I hold: it’s not a choice of one single paradigm, but embraces the richness of multiple paradigms, which I shall elucidate further later in this chapter. This, too, is a practice of the philosophy I hold: that of sharing understanding and insights, communicating or even entering a vigorous debate about a
certain issue, for after all, the understanding of an issue is arrived at by understanding our constructions about that issue. I believe, I can understand reality, by empirical inquiry, (by reducing it into parts and investigating it) or by looking at the interconnectedness of things, events and people, or by discernment. Here, I base the idea of discernment on Saint Ignatius’ Spiritual Exercise, (Puhl, 1990) which is trying to understand our life’s realities in the light of the Holy Spirit, or understanding it as in the mind of God. As with Berkelley (1952), I believe that God is the source of our every knowing. Likewise, I can also know of a truth or reality not only by an inquiry I do by myself, but by understanding others’ findings and meanings. My subjectivity and other’s subjectivity; my objectivity and other’s objectivity, all intricately woven into a multiple paradigms I hold.

Believing in multiple realities, this research was a guided by “epistemological heterogeneity” (Reason and Rowan, 1981) and “methodological pluralism” (Norgaard, 1989). In fact, this has been the quest of the academic organization of the Faculty of Agriculture and Rural Development of University of Western Sydney, Hawkesbury for more than a decade since the faculty realized the mismatch of its educational models to the ever-changing situation of agriculture, in industry and in society as a whole. Of particular inspiration in the development of multi-method approaches to a problem situation is its thrust for community development, with its inherent assumption that the development situations (as any other situations) are complex, and can be better understood by a “range of different methodologies of inquiry ranging from reductionist to systemic, to bear upon the problematic issues contingent upon their nature” (Bawden, et al., 1984). The key point here is learning (Packham, 1994: personal communication). The Faculty recognises that how we see the world determines what we see in the world (Churchman, 1971). This has led to its vigorous exploration of ontological, epistemological and methodological issues of agriculture as being not only as a science, but also as a “human activity system”. This is defined in systems terms as “sets of human activities more or less consciously
ordered in wholes as a result of some underlying purpose or mission ... consists of activities linked together as a result of some principle of coherency” (Checkland, 1981).

Systems thinking is an attempt within the broad sweep of science to retain much of that tradition, but to supplement it by tackling the problem of irreducible complexity via a form of thinking based on wholes and their properties which complements scientific tradition (Checkland, 1981).

The whole research process was evolutionary. What was clear to me was the dream, the vision, that my research be relevant to the needs of our people. With Herman Miller’s president Ed Simon (in Senge, 1992), I also would say: “When you are in a vision, you know what needs to be done. But you often don’t know how to do it. You run an experiment because you think it’s going to get you there. It doesn’t work. New input. New data. You change direction and run another experiment. Everything is an experiment, but no ambiguity at all.” It could mean trying new options, new ways, and taking risks, all for reaching towards the vision.

The vision of this thesis was to explore possibilities of improving the situation of a rural community in the Philippines. Cognisant of my own bias for animal nutrition for an improved animal production as a way to improve the situation, the search for an overlap of vision, or allowing a shared vision to emerge was very clear in the process adapted.

The interplay of the objective and the subjective inquiry is evident even in the initial stage of my research. I did a Farming Systems Analysis for various reasons (which I shall discuss later in Chapter 5 and 6), but particularly to identify some researchable areas for small ruminant nutrition relevant to the needs of the farmers, looking for the possibility of crop-livestock integration in the farming systems. The analysis was designed in such a way that it would bring out the needs of the farmers. It was hoped that improving animal production would improve agriculture and consequently
contribute to the development of the community. Side by side with the Farming Systems Analysis, I conducted interviews, dialogues and workshops on various themes (as they emerged from the inquiry process) in a search for how the people themselves saw the situation, and what improvement they thought was needed. Even during the research, the process unfolded, one activity informing and shaping up the next. The initial interest on technical issues evolved to embrace broad issues of community development.

Within the multiple paradigms I hold is that of a constructivist believing that “there exist (in a group of people) multiple socially constructed realities” (Guba and Lincoln, 1989) which would require a sharing of understanding of these realities. This is the philosophical base for participatory research. With this, we try to understand some social realities by understanding how the people involved understand it.

At this point I would argue that how we view reality would have a repercussion on how we approach community development. Sharing of understanding alone may not lead to any change of social realities. We have to believe that we are capable of transforming the world and in so believing encourage actions for its transformations. There must be a recursive flow from theory to practice, from practice to theory. If there is no “real world” out there, to talk of praxis would be without meaning. The only thing we have to do is just to transform the ideas that exist solely in our minds, as Guba, (1990) would argue. If there is no reality other than what is constructed in the minds then the reality “out there” can remain as it is, untouched, unchanged(?) I do not support the constructivist’s idea that as reality exists solely in the mind, then it’s only the mental constructions that need to be changed. I would purport as with Freire (1972) that there is both an objective reality and a subjective reality. So for any change for the better, there has to be a transformation of the “reality out there” and the mind’s constructions of that reality.
As I believe that there are multiple realities, I appreciate open communication. When it comes to understanding in order to transform social realities, I believe in the necessity of a dialogical encounter, a moment where humans meet to reflect on their reality and transform it in a way that is meaningful to them. To the Greeks *dia-logos* meant a free-flowing of meaning through a group, allowing the group to discover insights not attainable individually (Senge, 1992).

Multi-disciplinary inquiry is an initial attempt to develop a dialogue of paradigms. This dialogue is not a debate where one can obstinately stand for what one believes and closes the mind to other thoughts, but rather a dialogue where there is open communication and mutual recognition of what one strongly believes.

"Give me a lever long enough and a place on which to stand and I can move the earth." This has been thought to be said by Archimedes long ago in the early attempt of human inquiry into understanding nature. It is a metaphor for a process of inquiry that is thought best to unfold the secrets of nature and be able to manipulate it in favour of the whole of humanity. This has developed an inquiry process that required objectivity, a "distance" between the observer and the observed.

This positivist process of inquiry has achieved so much that we have been overwhelmed by its fruits and overlook its limitations. Nature which used to be a mystery has been explored and some of her secrets unearthed. I, myself have experienced being overwhelmed by the achievement of science with my flight overseas. The aircraft engineered to fly at the speed of one thousand kilometres per hour and delicately designed to protect us from a lethally freezing temperature of negative 50° Celsius and important details monitored through a computer.

Being able to talk with my friends in the Philippines (unfortunately not to my family for we live in a rural community with no telephone lines yet) is a great testimony to how science can in many ways make our life enjoyable. I also remember my supervisor telling me how much easier it is for me now to do a database in a computer.
than when he did his PhD, using index cards some years ago. Our life can indeed be made more comfortable, easier and more enjoyable with the advancements of science.

It is because of these overwhelming achievements of science that we raise it up to the pedestal of admiration and oftentimes to the extremes of adoration, of authority and of the magical power to rule our life. I have graduated Bachelor of Science in Agricultural Education major in Animal Husbandry. For me it was also a prestige to finish a Baccalaureate degree in science. A course is not considered prestigious until it has reached the level of being a science. So I did my Master of Science in animal science major in animal nutrition and minor in biochemistry.

In the Philippines, agriculture education itself has developed to be more science oriented. More recently it has been reviewed in an attempt to make it more responsive to the needs of the country, particularly for rural development. Science oriented courses are not seen to be relevant to the needs of the poor and as such not responsive enough to the needs of our developing country.

The prestigious status of science and the authority of a scientific approach has appealed so much that we have used measurements and tried experiments as if humans were specimens for study. Those studying the world of humans often do not distinguish the reality of people and the reality of things. What has worked well in the inquiry of things has been adapted in understanding the humans and the social realities.

It is at this point that I stand for a paradigm of constructivism that:

There exists a multiple socially created realities; the inquirer and the inquired into are interlocked in such a way that the findings of the investigation are the literal creation of the inquiry process; [and involves a ] “continuing dialectic of iteration, analysis, critique, reiteration, reanalysis and so on, leading to a joint construction of a case” (Guba and Lincoln, 1989:84).
But even social realities do not stand isolated from other realities. As earlier argued, people and things are in constant interaction. We can not understand the people without understanding the things around them. It is at this point that I also stand for a positivistic paradigm, this being one of the multiple constructions that I hold. Within a positivist’s paradigm is a belief that:

There exist a reality out there driven by immutable natural laws and mechanisms. ... that it is possible ... for the inquirer to adopt a distant, non-interactive posture. ... involving empirical test under carefully controlled conditions (Guba, 1990:20).

This positivist’s approach to inquiry tries to understand reality by breaking it into smaller components, thereby making it manageable for investigation and manipulation. At this point, I tried to reflect about how else we could understand the basic details of nature for one thing, the human mind is finite. Although we know now that the human mind has enormous capacity to learn, we know for certain that it also has its limits. We can not know everything nor even attempt to study everything. Another constraint is the time limit. We can not be PhD’s in all fields. We choose one that is more interesting for us, or which we have an opportunity to pursue. And in this chosen field of inquiry or studies, we tend to go deeper and deeper to become an authority in it.

When I finished my Master of Science in animal nutrition I thought about pursuing PhD in a more narrow, but deeper study of vitamin or mineral nutrition. Not surprisingly, my friends used to wonder why I did a PhD in Agriculture. “It’s going back to the general subject” they exclaimed which somehow shook me in the pursuit of what I thought was a very wonderful research in agriculture and community development (which after understanding my inner tension and clarifying my passion), I find it more meaningful and rewarding.
As most of the investigations and inquiries are done by individual researchers, the tendency to limit and reduce problems into simpler components might continue to be reinforced. Besides limiting the area of inquiry within a familiar discipline can also make the researcher feel more comfortable than formulating research questions that could run across fields which are less familiar, for it can be daunting.

While reducing problems into simpler components has enabled scientific studies to discover the wonders of nature, we are also aware that same approach to inquiry has caused havoc in the life of many. One example would suffice. The International Rice Research Institute (IRRI) in the Philippines was established about fifty years ago. It was envisioned to develop high-yielding varieties of rice. Focusing on a few parameters such as yield, disease-resistance, maturity, eating quality (to be able to compete with the local varieties generally known for its excellent eating quality), rice researchers just focused on their own field of investigation. For a decade, the institute produced a number of varieties with a good record of yield. Unfortunately these good yields were achieved under good conditions of the research station, which often were not matched with the farm conditions of the majority of Filipino farmers. The high-yielding rice varieties required a high-cost technology: inorganic fertilisers (which are imported and therefore very expensive, moreover its supply is included in the loan packages to farmers); and extensive use of farm chemicals and irrigation (which many Filipino farmers don’t have). As such, while an increased yield can be statistically articulated, the quality of life of the Filipino farmers has remained unchanged if not deteriorated.

During the 1980’s some Filipino researchers were awakened to the impact of the Institute on the life of the Filipinos, a possibility of going back to the upland rice varieties (that we used to grow and can thrive well without irrigation) was not possible, as they realized that the germ plasm of these varieties had already been lost.
It was thought of as technological sabotage and the discussion of its implication did not have a wide dissemination.

There is no doubt that the yield of rice has increased because of improved technology, but its impact on the plight of farmers is highly questionable. This is one show case of how dealing with a problem in isolation from other factors can solve one problem and create many other problems.

I can just feel how powerful the effect of science has been on our way of thinking and way of doing things. As with Feyerabend (1975), “my criticism of science is that it inhibits freedom of thought.” It weakens our ability to have a critical reflection about a situation as it consistently narrows down our focus. It fails to help us see a broader perspective. We lose sight of interconnectedness of things, of events and of people. It can even dictate what questions to ask so it also defines what facts to find.

While there are now some social science studies integrated with the research on rice, it still remain compartmentalised. Even multi-disciplinary approach to researching, the different disciplines still operate on its own. As Chambers (1993) observed, “There is a core elitist assumption that if enough disciplines are mustered and all put to work to study a rural situation or problem in the normal professional way, it will be fully covered. Like searchlights, they will, if there are enough of them shed dazzling light on all of the target. But this is not so. One example can suffice. Agro-forestry- the growing of trees in interaction with crops and/or animals- is a major component in the farming systems of hundreds of millions of poor farmers. But professional forestry is concerned with trees and forests, agricultural sciences with crops, and animal science with animals.”

There has to be another discipline to integrate all these other disciplines, now labelled as systems thinking. Senge (1992) calls it the fifth discipline of a learning organization. He goes on to argue that “without systemic orientation, there is no motivation to look at how the disciplines interrelate.” It is systems thinking that
integrate the other disciplines into an ensemble, a coherent body of theory and practice.

Realizing the problems caused by using only a reductionist approach to inquiry has made some reject this view of the world. The alternative to reductionism is holism, but as Lewontin (1993) would assert, "the holistic view of the world is untenable. It simply is another form of mysticism and does not make it possible to manipulate the world for our own benefit." He contradicts the Gaia hypothesis which believes that the world is one huge organism that regulates itself to some good end.

With this argument, he proposes to construct a third view: "one that sees an entire world neither as an indissoluble whole nor ... the dominant view that at every level the world ... is made up of bits and pieces that can be isolated and that have properties that can be studied in isolation. Both ideologies prevent us from seeing the full richness of interaction in nature ... prevent us from solving the problems to which science is supposed to apply itself" (Lewontin, 1993).

This proposition of Lewontin is rather different from my philosophical stand. He seems to choose the in-between of reductionism and holism. For me, it is not a choice of one or the other, neither the in-between of the two philosophical positions. Although, these two philosophical positions (reductionism and holism) appear to be diametrically opposed and mutually exclusive of each other, as with Bawden (1987), I also believe that they are two aspects of the same continuum, the "glorious unity" as Ludwig von Bertalanffy (1968) has called the dialectic implicit in General Systems Theory. Truly, we can not explore the whole system without a reference to its part (reductionism) any more than we can study the parts without reference to the whole system they comprise (holism). Furthermore, it makes little sense to study the system itself without reference to the environment with which it is attempting to co-exist.

I have a feeling that much of the misunderstanding between any opposite camps, such as constructivism and reductionism; masculine and feminine; reasons and emotions;
top-down and bottom-up approach; government interventions and local initiatives (and a long list of opposites can go on), is the lack of mutual recognition for each of the opposite’s appropriateness, strength (and weaknesses included). My passion is the quest for complementarities of seeming opposites.

Kant (in Stefurak, 1994) propounds that:

Central to Hegel’s philosophy is the precept that any system can be visualised as a set of logical categories and these logical categories generate their own opposites. That is, truth is conflictual. The truth value of any system is a result of a highly complicated process that depends upon the existence of a thesis and an antithesis. The union of these opposites leads to a more adequate grasp of the nature of things until finally all possible points of view with all their seeming conflicts become the constituents of one comprehensive system (Stefurak, 1994:1503).

This must not be a passive acceptance of seeming opposites, but as I have pointed out earlier, let it be a call for a paradigm dialogue. I agree with the proposition of Bawden (1987) that “progress comes not from accepting that all views have legitimacy to exist, which leads to pluralism, but from accepting that the tension between opposing views is a fertile area for the generation of an entirely new view.”

There is one thing that I think, is agreeable to the opposing camps of reductionism and holism. It is, that reality is complex. It must be this complexity, that a reductionist approaches by breaking it into parts to make it manageable for study. More than half a century ago Heisenberg (in Guba and Lincoln, 1989) enunciated his now well-accepted Uncertainty Principle, which asserted that when an investigator is facilitating certain observation (for example, determining a particle’s mass), it is impossible to make certain other observations (for example determining that particle’s velocity). It is this same complexity that the holistic philosophy argues for viewing reality as a whole because breaking it into parts can lose the essence of the whole. As physicist David Bohm says (in Senge, 1992), “it is similar to trying to
reassemble the fragments of a broken mirror to see a true reflection. Thus, after a while we give up trying to see the whole altogether.”

Systems is a way of viewing things as a whole and the interconnectedness of its parts. Systems recognises the distinct property of things which is discernible only when viewed as a whole and lost by viewing its parts in isolation just as we can not understand the forest by studying a tree; or we can’t understand group dynamics by studying about individual behaviour. There is a property that only emerges as a whole, properly called in systems thinking an emergent property.

In any situation, its component parts can be seen in its interconnectedness that make up the whole. What happens in one can affect the others. This is the principle of holism that, it is good and useful to look at the world as if it were made of complex wholes we now call systems (Wilson and Morren, 1990).

 Systems is a way of looking at reality in its complexity, and how to deal with it. It is based on an assumption that anything can be connected with anything else. At this point one can imagine how impossible it could be to view the world in all its complexity unless we also reduce it to some level of complexity. This is a systems version of reductionism (Wilson and Morren, 1990), a concept of hierarchy. It says that some properties of components are reducible to properties of components. Thus, if we consider the whole world and all that is in it as a supra system, we can cluster other components of it into system, then into sub-system and down into the smallest sub-sub-system, but keeping in perspective the interconnectedness of components within the system, and the system to its environment.

Looking at things in a systemic way can help us realize the consequences of our actions, the repercussion of what happens in one system affecting other system. We can not just focus on solving one problem without reference to other likely problems .

My interest for articulating the philosophical foundation of my research is to indicate that it is not value-free, not neutral, but rather value-laden and it takes preferences. As
will be articulated in Chapter 4, this research also recognized its ideological perspective and my preferential option for the poor. There is now a growing recognition that science is not value-free. So, scientific findings can not be shielded from critiquing, or have the motivation hidden. In as much as science affects the people, it has to be opened for public scrutiny and debate.

The reductionist approach of science has pervaded almost every human endeavour, in education, in industry, in agriculture, in community development. So we have the “banking education” (Freire, 1972) where we regard the teacher as the depositor of knowledge; we have a production oriented agriculture and industry which has little regard for sustainability; and an economic oriented community development focus with little consideration to human development.

Within the paradigmatic pluralism, the key factor in the fluid movement from one paradigm to the other is learning, based upon critical reflection about and during an experience. One difficulty with our ways of doing things is when we become comfortable with a particular way, that becomes unquestioned, even when the context from which it evolved has already changed in time. Just like the strong push for productivity, instead of us holding that idea, it is the idea that is holding us.

One more example can highlight my argument of the need for critical reflection of whatever we do, of holding an idea rather than an idea holding us, of searching for complementarities of seeming opposites and of holding multiple paradigms rather than choosing one and rejecting another.

For the past thirty or forty years, researchers in animal science focused on the singular direction of increased production. The dominant thinking was to improve the genetic character of animals and control the environment for its optimum performance. The animals were seen as of economic significance, and performance evaluated in terms of the production of meat, milk, or wool. As the animals, particularly from the First World countries, were performing better in terms of
production, animal science research in Third World countries was driven by an attempt to improve the indigenous breeds through crossbreeding or upgrading. The control of the environment was likewise attempted by many researchers. This line of researching has recommended breeds or crossbreeds, but with technological requirements which can not be afforded by many small-scale farmers. Moreover, the high producing animals could be a mismatch to the value system of some peasant communities. As Dohlberg (1982) reported, “There is a kind of ancestral wisdom in many traditional communities involving well-proven survival strategies. Where profits could be higher, but at higher risk, the farmers almost invariably choose the lower risk. For example, while it can be biologically more efficient to keep one large beast to pull the plough or to yield milk than to keep two small ones at the same total weight, traditional farmers prefer two small ones. The possible death of a single large animal would be too disastrous.”

Scoones (1992) observed that the local perception about the relative values of the different functions of livestock did not necessarily agree with the economic values assessed by the so-called experts. So Orskov and Viglizzo (1994) suggested a new paradigm for animal science: that of considering the role of animals in spreading farmer’s risk and other social and religious values.

With Ringma (1991) I also propose that “wisdom finds its truest expression, not in the form of the right answer, but in the discerning question which opens up new possibilities” This brings me to articulate my faith that we can better our life, that we can facilitate others better their lives through the process of learning, and learning together, sharing dreams and aspirations pursuing it and working together.

With this philosophical position, as a researcher, I could not claim an understanding of the reality of the situation in our community without reference to that common understanding we have had through dialogic interactions occasioned through participative action research. The basic question and ethical consideration which is
the passion of this paradigm of researching as advocated by our Faculty is “what constitutes an improvement” and “who defines it”. This necessarily spurs us on to do a type of researching that involves the people concerned.

This dialogical interpretation and action for situation improvement expresses my ethical position of working with the people, not just working for them. Skolimowski (1985) reminds us that: “All life is participation. The song of life is the song of participation. The sorrow of life is estrangement from participation. The participatory universe is another name for the unfolding of life in orchestrated forms. The participatory mind, or the co-creative mind is an acknowledgment of the magic of becoming and also an assertion of our role in the creation of this magic.” He further argued that “Our status as human beings is defined by the degree to which we are allowed for co-creative participation. Our status as human beings is degraded by the degree to which we are duped into participation which is pseudo-participation, a form of pre-programmed participation in which somebody else holds the strings and attempts to make puppets of us (Skolimowski, 1985 p.31). Participation means that we are socially and ecologically responsible (Skolimowski, 1985). We are committed and not an “objective” outside observers. This brings with it the responsibility for caring and love (Skolimowski, 1985; Maxwell, 1984).

If there is anything that appealed to me so much in the research that I have done, it is being participatory in almost all stages. The participation of all people involved: my supervisors, (see Packham et al, 1993) staff and students of the Faculty and the people of our community have all in one way or another, directed the course of the research. As I have learned, too, from this research, it is this participation that could unleash social energies capable of informed action.

This research finds an echo deep in my heart and in my faith, I did it with a sense of mission. This has also allowed me an expression of an active faith: a loving response through the active participation in that call to share God’s love to his people.
INTRODUCTION

Keep the fire burning,
kindle it with care
and we'll all join in and sing.
Here we are all together as we sing our song joyfully.
Join now as freedom everywhere
and we'll all join in and sing!

- Anon (a popular community song).

THIS was our song, the song the research core group used to sing to cheer each other when the ‘going got tough’ in our Participatory Systemic Action Research. What bound us together throughout the process of researching was our passion, our faith, our commitment to each other and to the people of our community. This faith and commitment was for us, like a refrain that we can better our life, that we can facilitate others to better their lives through the process of learning, sharing dreams and aspirations pursuing them and working together. This echoed in our hearts through our song of participation.

There is nothing more glorious in an activity than finding a deep meaning in the experience such as we found doing the Participatory Systemic Action Research. With Kemmis (1990), I, also believe that “we” “are the people who, through our work construct the practices, the tradition and the history of research ... we are active agents of research in our society - people who can through the choices we make about how we will participate in the work of research, tip the scales of history”. 

70
In this Chapter, the literature review on Action Research will be discussed as it helped shape the methodology of this research. The terms Action Research, Participatory Research and Participatory Action Research are often regarded as synonymous. My literature review, however, shows that each has distinguishing characteristics though there are many commonalities.

The title of this Chapter “Towards Participatory Systemic Action Research” indicates a movement. I mean it to be a metaphor for journeying, exploration of the mind, searching for meaningful research. A movement can also mean openness of the mind, such as holding a cherished idea, but not in anyway the idea holding us. For me, discovering a new paradigm of researching is like a journey. As I mean to move onward, I continue to sense and make sense along the way. On a journey, while one is clear about a general direction, one continues to learn the peculiarities of nooks and corners of the way, being open to surprises that may come along the way. Learning on the journey is continuous. The title is also meant to reflect the evolution of the methodology of this research when developed through the process of the research which will be discussed in Chapters 5, 6 and 7.

**MY PREFERENCE FOR ACTION RESEARCH**

My personal experience shaped my ideological perspectives and trust of the action research approach. The economic depression my family experienced caused me to be aware of the many constraints the poor can encounter in pursuit of self-fulfilment, of unfolding the potential of a human being, as a person, as a community.

I was in the high school when martial law was declared in our country. The dictatorial regime curtailed our freedom, not just of speech, but also of freedom to organize.
During that period, there was a dramatic increase of poverty in the country: the gap between the rich and the poor became wider and wider. While it can be acknowledged that it was during that regime that a comprehensive development program was conceptualised, that development program had very little "trickle down" effect.

Justice and democracy also decayed during that time. This caused a fear of criticising the evils of the administration. So while there was a growing "inner unrest" in the people there was also a growing silence until the people gathered strength to stage a political struggle, toppling the dictatorship and gaining back democracy.

Those were the moments that taught me to take a certain position, a passionate stand. I realized that neutrality had no power and I believed that one can not change any imbalance by being neutral. After all, there is no such neutral standpoint from which we can view the world (Habermas, 1974; Carr and Kemmis, 1986; Brauer, 1994).

After two decades of the Marcos regime, the people became acutely aware of the grim reality: of injustice, of oppression, of moral degradation, of massive poverty and the callousness of the rich and powerful oligarchs. From this "dark" part of our history, there developed a growing movement of the left which wanted to stage a political struggle, even to the point of tending to armed struggle in order to overthrow the unpopular regime. This group advocated for massive structural reform. This group did not believe any more in the possibility of an honest election. In an era of powerful control over all political machineries, it was almost hopeless to have a fair election. With this, there emerged a nationwide movement which organized volunteers to help ensure a fair process of election. This movement itself declared a neutral stand, not campaigning for Marcos, nor Aquino. Meanwhile, the Marcos loyalists doubled their efforts with "guns and gold," to win.

At that time, I believed that while I desired government reforms, I did not favour an armed struggle of the left. There was the national movement for a free election,
(NAMFREL) but I thought that it would not be able to diminish the power of the “guns and gold”. If Marcos unfairly won again, the campaign of the left for an armed struggle could win the people. With this possible scenario I found myself in tears as I prayed to God deep in my heart ... Maranatha ... come Lord my God ... come to our Land.

A challenge to decide was there confronting me as it was confronting all other Filipinos. With the government’s control of government agencies, there was a discrete, but powerful threat to any political discourse, or similar sorts especially among teachers. It was a violation of the Teacher’s Code of Conduct to engage in electioneering, so I applied for a leave of absence from the Agricultural College where I was teaching and I felt free to stand for a choice! ...and it was like a droplet that has joined the mainstream for the historic “people’s power”. The courage to fight for justice and peace and the massive participation and involvement of the people made a dramatic turn in our history.

Reflecting on this part of our history, I realized it was a choice between two undesirable extremes: between dictatorship and communism, between individualism and communalism. I knew there was a beautiful space between these two extremes. I was believing, like many other Filipinos, that we could still work together and build a community of peace and justice through authentic political discourse and genuine cooperative social action.

In a society, like Philippines, where there is a huge gap between the rich and the poor, it is difficult to find a situation where there can be “fair-play” in the pursuit of a decent life. It was in recognition of this reality in our society, that my preferential option for the poor developed that of a Participatory Systemic Action Research. This Participatory Systemic Action Research was not passive, but active, not neutral, but value-laden, not just seeking an explanation, but seeking for a desirable change, not just action, but also researching.
Highlighting The Value of Participation

In the Spiritual Exercises of St. Ignatius (Puhl, 1990), it is recognized that one way that evil works is by "hiding" the evil intention which can take the form of lies or silencing: not being open, not being transparent. In social affairs, we can term this as hidden assumption or a hidden agenda. Worse still, is when this hidden agenda takes the cloak of generosity, using appealing terms such as "aid" or "development". Recognizing this possible loop-hole, I can not any more believe in the authenticity of development work or similar sorts of good work 'for others' in micro or macro level without a genuine "discourse" (Habermas, 1973) "dialogue" (Freire, 1972) or "debate" (Checkland, 1981; Checkland and Scholes, 1990; Flood and Jackson, 1991). Similarly, I can not any more believe that we can help the people improve their quality of life without their involvement, their participation, their collaboration, their cooperation. After all, each one has his or her own interpretation of "reality" and of what constitutes what is good.

With the paradigm I hold (articulated in Chapter 3) and the song in our hearts I saw no approach than that of a Participatory Systemic Action Research to help the poor of the community of San Fernando. With this new paradigm, I believe that we are active participants of creation, co-creators of our own realities. We are not "distant observers," but committed participants because we love, we care.

Participation in the making of our life, and the shaping of our destiny is a mark of our dignity as a human being. As Skolimowski (1985) would put it: "Our status as human beings is defined by the degree to which we are allowed for co-creative participation. Our status as human beings is degraded by the degree to which we are duped into participation which is pseudo-participation, a form of pre-programmed participation in which somebody else holds the strings and attempts to make puppets of us".

Greenberg (1975), in his analysis of participation, develops a taxonomy identifying four positions. Briefly, the management position holds that participation improves
organization performance; humanistic psychology thinking argues for participation because it is good for mental health; democratic theory argues for participation as a means to the realisation of a democratic society; and the participatory left argues for participation as the road to societal change.

Even Frideres (1992) in his critique of participatory research for its lack of methodological rigour, acknowledges the value of participation arguing that involvement of the respondents in the research process is not antithetical to the positivist position. He further argues that the scientific process encourages involvement of potential subjects in the research process as in a “pre-test” which sensitises both the researcher and the subject to the issues being discussed.

My Choice of Methodology for This Research

Coming to a Faculty which has introduced much radical change in its approach to education, research and extension viewing it as one integrated process in an action research, my quest for an appropriate methodology was not like breaking new ground. The “spiral” of research methodologies (Bawden, 1985) that is characteristically systemic and critical (Bawden, 1990) espoused by the Faculty, guided the Participatory Systemic Action Research that has evolved in this research.

Since the beginning of the educational reform in 1978, the Faculty has undergone a major metamorphosis as an educational organisation (Bawden and Macadam, 1990). It has continued to learn about itself, reviewing the conceptual maps held about agriculture as an interface between people and their environments. (Dahlberg, 1979). It was intuitively accepted in the Faculty that systems thinking and holistic philosophies would be of use in dealing with the complexity and seeming deterioration of the agriculture/environment complex (Bawden and Packham, 1993). The details of the evolution of the Hawkesbury systemic approach to agricultural

One thing very interesting to note is its openness to new insights and new learning. It was this that made me feel an active part of the whole system. There was an encouragement for collaborative learning with each person having a place to share their own experience, ideas, insights, intuition and faith. With this advocacy of a holistic perspective, I found a place for my own search for holism, an integration of dualism and expression of the complementarities: of emotion and reason; of creativity and logic composition; of subjectivity and objectivity; of feeling daunted by the uncertain, at the same time passionate for trying.

As expressed by John Harriot, I found that in researching:

There is room in the world for loving;
There is room in the world for sharing;
There is room for justice;
There is room for compassion

Our Faculty has a strong passion for rural development. It is this passion that spurs them to continually refine a methodology of research. It had to review its agro-ecosystem (based from Conway, 1983) model of researching after realising that it led to non-social, instrumental action as it was concerned with the efficient employment of things rather than the development of inter-personal relationships (Ulrich, 1988).

In this light, I was encouraged to use Participatory Systemic Action Research. This style of research that allows learning while researching and researching while
learning. It allows immersion in the context to get involved with the people while allowing moments for listening and learning from each other.

My choice for a Participatory Systemic Action Research was influenced by reflecting on the experience of the past when agricultural researchers often did not effectively address the needs and aspirations of the farmers. As Starkey (1989) observed, farmers were seldom consulted as experts in farming under prevailing conditions. Researchers produced high quality technologies suitable for use only on the research stations. The various technical solutions were often promoted in a classical “top-down” education/extension programs. As it transpired, the recommended technologies were often found to be unadapted to the actual problems of small farmers. As argued by Sriskantharajah and Underwood (1988), sustainable rural development requires that the technology be generated by appropriate education and research in situ which takes into account the environmental, social and cultural factors that have an impact on such development and above all, the wealth of human resources and indigenous knowledge and wisdom.

Community development would require more than doing the research in situ. It is the interconnectedness with the people we think we are working for or working with that gives meaning to our development efforts. Peavey et al (1986) thinks of connectedness as a political principle. She goes on to write:

> Even some of our noblest efforts have a kind of delusion at the center because they lack heart. If we aren’t connected to the people we think we are fighting for, there’s an emptiness, a coldness at the center. It’s the same coldness that’s at the heart of prejudice - the coldness of separation (Peavey et al., 1986:8).

**Action Research As a Philosophy, A Way of Life**
For me, action research is another kind of methodology, but its deepest essence is in its philosophical underpinning. Thus, it is not just a methodology, but also a philosophy, a way of life. In the words of Fals-Borda (1992):

Participatory Action Research is a part of social activism, with an ideological and spiritual commitment to promote people’s (or collective) praxis. We saw, too, that formally or informally, the life of everybody including that of the Participatory Action Researchers, is a kind of praxis. The promotion of people’s collective and their systematic praxis becomes, and continues to be, a primary objective of Participatory Action Research (Fals-Borda, 1992:15).

Participatory Action Research has developed as cultural, political, and scientific vivencia, or life experience as a response to the “dismal situation of our societies, the overspecialisation and emptiness of academic life” (Fals-Borda, 1992). He continued saying:

We felt that radical transformation was necessary and urgent, and that scientific knowledge (which in our societies, has generally remained in the Newtonian age with its reductionist, instrumental orientation) could be more appropriately used towards this end. We began by focusing on the victims of oligarchies and their ‘development’ policies: the poor communities in rural areas (Fals-Borda, 1992: 15).

Believing that life can change; that creation is done, but is yet to be; that reality is not a positum and that it is becoming; that we have a calling of transforming reality; mine was a quest for a research methodology that was expressive of the philosophical position I hold, and which is articulated in Chapter 3.

Underpinning this research were assumptions that: there exists multiple socially constructed realities (Guba and Lincoln, 1989); there are many truths and many ways
of knowing them (Bohm, 1981; Schwartz and Oglivy, 1979); and reality may be more fully revealed in the way in which these different ways of knowing or perspectives overlap (Reason and Heron, 1986).

In my choice for a Participatory Systemic Action Research I was guided by the following questions:

- Will the methodology be useful in understanding the situation in its complexity?
- Will it enable us to explore possibilities for the poor?
- Will it allow various perspectives to be expressed and true interests of the participants to emerge?
- Will it allow a common vision to develop?
- Will it generate a social energy capable of fulfilling the common vision or the desired change?

These questions led me to a further review of Action Research which now follows.

THE DEVELOPMENT OF ACTION RESEARCH

“Research that produces nothing but books will not suffice” (Lewin, in Kemmis and Mc Taggart, 1990:2). This statement emphasises the value of ‘action’ part in action research. But it is equally clear that knowledge is also a part of the goal of action research.(Kemmis and Mc Taggart, 1990; Bawden, 1990; Dick, 1991).

The first work of Lewin that can be labelled Action Research was done in the 1940s (Lewin, 1943). His main topic was how to go about changing social systems based on a scientific methodology. He designed an experiment to test whether or not it was possible to encourage American housewives to use entrails as part of their normal diet. In the words of Levin (1994) who reviewed this work of Lewin:
This represented a very early attempt to develop scientific knowledge based on initiating actions and recording the outcomes. In this model of Action Research the researcher was highly visible and certainly impacted on the whole experiment. In no way was the researcher an objective observer (Levin, 1994:36)

Kurt Lewin (1952) who coined the phrase ‘action research’ described the process in terms of planning, fact-finding and execution. Planning usually starts with something like a general idea. For one reason or another it seems desirable to reach a certain objective. Exactly how to circumscribe this objective and how to reach it is frequently not too clear. The first step then, is to examine the idea carefully in the light of the means available. Frequently more fact-finding about the situation is required. If this first period of planning is successful, two items emerge: an ‘overall plan’ of how to reach the objective and a decision in regard to the first step of action. Usually this planning has also modified the original idea. The next period is devoted to executing the first step of the overall plan. In highly developed fields of social management, this second step is followed by certain fact-findings. This fact-finding has four functions: (1) it should evaluate the action by showing whether what has been achieved is above or below expectation; (2) it should serve as a basis for correctly planning the next step; (3) it should serve as a basis for modifying the overall plan; and finally, (4) it gives the planners a chance to learn; that is to gather new general insights. The next step again is composed of a circle of planning, executing, and reconnaissance or fact-finding for the purpose of evaluating the results of the second step and perhaps modifying again the overall plan (Lewin, 1952).

**Defining Action Research**

I believe in the power of naming and thus believe that it is necessary to define action research. In the Bible, the name of a person expresses the soul attributes, the mission,
the calling, the “what is”, and the “what is to be” of a person. Estes (1992) wrote: “Wish as one may, and even with the use of one’s might, one can not have a relationship of depth without knowing the names.” In our vocation to transform the world, we are also called upon to name the world. As Freire (1972) asserts “The naming of the world is an act of creation and re-creation ...” (Freire, 1972:61), a way things can possibly change.

In traditional philosophy, a definition seeks to capture the essence of an object. Rather than following this manner of defining, Altrichter et al (1990) argue that definitions have pragmatic, descriptive and normative functions. They are pragmatic in that they help communication in cases where the participants do not have shared experience of the meaning of an object; they are descriptive in that they record a usual (culturally and historically located) usage of language; and they are normative in that they attempt to include some phenomena into the meaning of a communicated term and exclude others. They further contend that these are preconditions for the communicative function of a definition, and are useful in providing a basis for the critique and development of a concept.

Too purist a definition of action research can be disenfranchising (Holly, 1989). Beginners of action research may find it difficult to meet the rigorous requirement of participation and collaboration. Insisting on rigour can lead to losing both the potential practitioners and development of the approach. There is more that can be contributed in the development of the approach if any action research is allowed to evolve and develop.

At the International Symposium on Action Research, Altrichter et al (1990) reported that it was not easy to agree on a single definition of action research. However, a working definition was developed (Table 4.1).
Table 4.1. Working definition of Action Research

*If yours is a situation in which*

- People reflect and improve (or develop) their own work and their own situations
- by tightly interlinking their reflection and action
- and also making their experiences public not only to other participants, but also to other persons interested in and concerned about the work and the situation, that is, their (public) theories and practices of the work and the situation

*and if yours is a situation in which there is increasingly*

- Data-gathering by participants themselves (or with the help of others) in relation to their own questions
- Participation (in problem-posing and in answering questions) in decision-making
- Power-sharing and the relative suspension of hierarchical ways of working towards industrial democracy
- Collaboration among members of the group as a “critical community”
- Self-reflection, self-evaluation and self-management by autonomous and responsible persons and groups
- Learning progressively (and publicly) by doing and by making mistakes in a self-reflective spiral of planning, acting, observing, reflecting, replanning, etc.
- Reflection which supports the idea of the “self-reflective practitioner”.

*then Yours is a situation in which ACTION RESEARCH is occurring.*

(adapted from Altrichter et al, 1990:19)

The Conference accepted this definition because of the following reasons:

- It is *not too threatening* to existing understanding and practices,
- It is *not too vague* so that everything was included, but
• rather rich in examples which might support the development of shared meanings.

• It is open enough so that further elaboration and development seemed possible,

• allowing for an ex post facto incorporation of projects into the discussion (which had not been initiated and conducted on the basis of some elaborate understanding of action research, and, above all, shared with respect to the process of its formulation for a specific context (Altrichter et al., 1990:19).

Involving all the participants is at the heart of action researching. It exemplifies the integration of learning, research and extension. It can be seen to have dual goals: firstly, that of improving the practical problem situation and secondly, the development of understanding for action. (Although Bawden, 1994, discusses five outcomes of an action research).

Action research engages both researcher(s) and the client(s) as co-investigators and co-learners in thinking out the need for research, carrying it out and communicating the result (Rowan, 1981).

Action Research appreciates the role played by popular wisdom and common sense (Borda, 1990) or so-called indigenous knowledge (Chambers, 1987) which necessarily involves the clientele. Action Research aims not only to discover facts, but also to help in altering certain conditions experienced by the community as unsatisfactory (Curle, 1949). It is based on concrete problems in actual situations and no attempt is made to isolate out a factor and study it alone divorced from the environment which gives it meaning, and in this way Action Research can be described as systemic. The problems are studied in actual situations out of which they arise. Action researching can develop humility which is difficult to achieve if we believe that we have the answers for the people in a problematic situation or if we don’t trust that “the people out there” can understand, deal critically with their own
situation and can make and re-make their own realities. This is very much the essence of a constructivist paradigm which was discussed at length in Chapter 3.

Involving the clientele or “stakeholders” (Guba and Lincoln, 1989) is not only a fairness as prescribed by the constructivists’ paradigm and advocated by Freire (1972), but in itself creates a dynamic of relationships among the participants of action research that can unleash social energies as I shall discuss at some length in Chapter 8.

Three Modes of Action Research

Notwithstanding the diversity of definitions, Grundy (1990) has classified three modes of action research as: a) technical b) practical and c) emancipatory. I would like to emphasise her argument that this modal characteristic is dynamic. At one stage, an action research can be in one mode and continue as another mode.

Technical Action Research

Techne (a Greek word) is the root word for technical. According to Aristotle it is a source of a craftsman’s action which can be translated as skill, craft or art. The resulting action of techne is poieteke (from which poetry comes from) or creating in an artistic sense, or we can say a creative action. It is the artist’s, or the craftsman’s idea that guides the action (Grundy, 1990).

As a techne finds expression through a finished creation such as poem, a sculpture, or a cake, so is technical research, an outcome orientation. Its goal is efficient and effective practice. An idea may come from a particular person or group of persons, maybe by authority, by expertise or simply a vision! The role of the initiator or initiators is to communicate the idea, which in a way, can start a dialogue. Usually, the facilitator has to enthuse the participants to encourage participation and consequently the implementation of the idea.
In Grundy’s (1990) description of Technical Action Research, she indicates that the idea is there to be accepted or rejected by the participants. If it is accepted then the normal process of action research can proceed. Otherwise, no action research can occur. However, as she left a huge space for the development of the process and to move from one mode to the other, I can identify that even in this so-called technical action research where there is supposedly a pre-existing idea, I think, this very idea itself can be opened for evolution and assume another modal character, e.g., emancipatory. Someone has to start somewhere and open the way for what Habermas (1974) calls a “discourse” and Freire (1972) a “dialogue”. I agree with Senge that “the origin of vision is much less important than the process whereby it comes to be shared” (Senge, 1992:214).

While I argue for the fluidity of movement of the action research process from one mode to the other, it is useful to distinguish one mode from the other, so the researchers (and possibly the other research participants) will be aware of what mode the research is in and sense if it is their active choice. If it is otherwise, they may redirect it to how they would like it to be done.

**Practical Action Research**

To Aristotle the source of human action is knowledge. The source of skilful action was ‘knowing-how’ or *techne*, the source of scientific action was ‘knowing-that’ or *episteme* but the source of moral action was a different kind of knowledge called *phronesis* (Grundy, 1990).

Phronesis is a word so rich in meaning that it can not be captured in one English word, according to Grundy (1990). She translates it as practical judgment which contains in itself knowledge, judgment and taste. For Gadamer (1975), “Taste ... constitutes a special way of knowing. It belongs in the area of ... reflective judgment ... Both tastes and judgment are evaluation of the object in relation to the whole to see if it fits in with everything else, whether, then, it is fitting (Gadamer, 1975:36).
Grundy (1990) goes on to say that knowledge, judgment and taste combine to produce a *discernment* that is more than skill.

As I was trying to understand what phronesis means, I thought that it could be aptly translated too as *wisdom*. The Book of Wisdom confirms that “those who forsook Wisdom were bereft of knowledge of the right” (Wisdom 10: 8). Wisdom also means “keenness in judgment” (Wisdom 8: 11), “prudence, justice, and fortitude” (Wisdom 8:7).

Practical action research is like a search for wisdom that can lead to a wise action or praxis. “Praxis is not just a random action. It is action with regard to human good” (Grundy, 1990). Since what is right can not be determined independently of the situation, praxis is characterised by deliberation and choice. The deliberation is not so much about the end as it is about the means. It is assumed that something good is desirable, the question is how to go about it.

While Technical Action Research is product oriented, Practical Action Research is a process oriented, but not discounting an outcome. “Technical research seeks to improve practice through the practical skills of the participants. Practical action research seeks to improve practice through the application of the personal wisdom of the participants” (Grundy, 1990). Wisdom is here defined as not only the intuitive sense of what is good, but rather a “true and reasoned disposition”.

It is acknowledged that while practical judgment is the guiding disposition, a course of actions that have been desired and decided upon, may encounter personal or institutional barriers in which case it is highly suggested that cooperation and support of colleagues or other groups may be sought. Moreover, it is at this point of a Practical Action Research, where its practice based on practical judgment is constrained by restrictive structures, that a researcher will realize the need for a more powerful action research: (the need for emancipatory action research) ... actively seeking not
just the change of consciousness, also a change in the "objective reality" that distorts such consciousness (Carr and Kemmis, 1986; Grundy, 1990).

I hold the idea that no one can emancipate anyone. However, I do believe that emancipation can be facilitated as participants take joint responsibility in critical reflection that challenges not only their consciousness, but also their critical understanding of the social reality and then organizing a strategic action for change.

**Emancipatory Action Research**

According to Habermas (1974), the strategic action for change resulting from emancipatory action research develops through three phases as: formation of critical theory, organization of enlightenment and organization of action. As Habermas (1974) puts it:

> The mediation of theory and praxis can only be clarified if to begin with we distinguish three functions ... the formation and extension of critical theorems, which can stand up to scientific discourse; the organization of process of enlightenment, in which such theorems can be applied and can be tested in a unique manner by the initiation of process of reflection carried on within certain groups towards which these processes have been directed; and the selection of appropriate strategies, the solution of tactical questions, and the conduct of a political struggle (Habermas, 1974:32).

The role of the researcher as a facilitator is crucial throughout all these phases. There has to be an unimpaired communication, a kind of relationship which affords reciprocal recognition designated by Buber (1965) as an "I-Thou" relationship. As Grundy (1990) asserts “Enlightenment is fostered when, under the guidance of critical intent (of facilitator and individual participants) reflective participation occurs
through discourse. The reflective discussions of the group will involve the interaction between various ideas of group members in relation to a particular event, or situation. Unlike practical action research, the deliberations will encompass the social milieu in which the event occurs and seek enlightenment regarding that as well as the event”.

Grundy (1990) further articulated that these different modes of action research vary not so much in the methodology as much as in the assumptions and worldviews of the participants particularly on the question of power.

In technical action research it is the ‘idea’ which is the source of power for action and since that ‘idea’ often reside with the facilitator, it is the facilitator who controls power in the project. In practical action research power is shared between a group of equal participants, but the emphasis is upon individual power for action. Power in emancipatory action research resides with wholly in the group, not with the facilitator and not within the individuals in the group (Grundy, 1990:363).

Emancipatory Action Research is grounded in a critical theory developed by the “Frankfurt School” of philosophy and social science. According to Carr and Kemmis (1986):

What unites these people [of Frankfurt School] is the belief that the all-pervading influence of positivism has resulted in a widespread growth of rationality and a tendency to see all practical problems as technical issues. This has created the illusion of an ‘objective reality’ over which the individual has no control, and hence in the capacity of the individual to reflect upon their own situations and change them through their own actions. An overriding concern of the Frankfurt School is to articulate a view of theory that has the central task of emancipating people through their own understanding and action … ” (Carr and Kemmis, 1986:130).
One of the central aims of critical theory developed by the Frankfurt School has been to reassess the relationship of theory and practice in the light of a critique of the positivist and interpretivist approaches to social science. It critiques the positivist claim of being value-free. This being value-free is seen by critical theorists as a threat to the society of a possible end of reason itself (Carr and Kemmis, 1986). Critical Theory tries to reclaim the values, judgments and interests of humankind and integrating them into a framework of thought which could provide a new and justifiable approaches to social science (Habermas, 1974; Carr and Kemmis, 1986).

Emancipatory Action Researchers reject the account of the relationship between theory and practice given by interpretive research on the view that transformations of consciousness are sufficient to produce transformations of social reality. Nevertheless, action researchers accept that transformations of social reality can not be achieved without engaging the understandings of the social actors involved (Carr and Kemmis, 1986).

In developing the theory of a critical social science, Habermas (1974), refutes the idea that science offers an objective or neutral account of reality. He proposed a theory of “knowledge-constitutive interest” arguing that knowledge is shaped by the particular human interest that it serves. He labels these knowledge-constitutive interests as technical, practical and emancipatory. Habermas likens the role of a critical social science to psychoanalysis calling it a social political version of psychoanalysis.

The process of psychoanalysis allows the individual to understand his or her own irrational compulsions by reviewing the history of formative years. The aim is to be free from the constraints of the past, the conditions of which may no longer exist. It liberates the individual if he or she realises and deeply acknowledges that the “objective causes” of the unfreedom no longer exist. The “redemption” or liberation happens through a transformation of consciousness. But I think, critical social science
goes beyond the usual aim of psychoanalysis into aiming at changing the “objective” condition that at present still causes unfreedom.

While psychoanalysis seeks to uncover the cause of distorted understanding by revealing the individual’s self-formative years, critical social science seeks to locate the cause of collective ideological misunderstandings of social groups (Carr and Kemmis, 1986). They define action research as “a form of self-reflective inquiry undertaken by participants in social situations in order to improve the rationality and justice of their own practices, their understanding of these practices, and the situations in which the practices are carried out”.

**Relationship of the Researcher and the Researched**

Side by side with the ongoing philosophical debate on the nature of reality (or what is there that can be known: ontology) and the origin, nature and limits of knowledge (or how can we be sure that we know what we know: epistemology) is the methodological dispute about the relationship between the researcher and the researched.

Kemmis (1990) outlined a crude typology of the relationship of the researcher and the researched implicit in different forms of social and educational research from which he constructed a distinction between the “third”, “second”, and “first” person research. To highlight the essence of this typology of social relations in action research I weaved Kemmis’ (1990) idea, with that of Bawden (1990) as expressed in the latter’s model of action researching system.

**Third Person Research**

Third Person Research is based on a positivistic way of knowing, believing that there is an objective reality that can be measured, described or manipulated. The researcher
takes an objective stand with an effort to understand what really is there and not what isn’t. As argued in the Chapter 3 on “Holding Multiple Paradigms”, this objectivity has achieved so much in the natural sciences that this model of researching (Figure 4.1) has been carried out even in social science research. From this, a second model (Figure 4.2) under this Third Person research has been described where the researcher aims to explain people’s actions. Third Person social researcher is influenced by the assumption that if people’s actions can be reliably predicted, then this is the same as having explained their actions. Behind this mode is the will to control circumstances and consequences through the control of the actions of people. In this type of research, the researcher addresses the researched as “them”, “he” or “she” or “it”.

![Diagram](image)

Here is the farmer

Here is the expert researcher

Here is the farm

Figure 4.1. The researcher as technical expert: researching things (Bawden, 1990)
Second Person Research

The interpretivist addresses the researched in the second person as “you” (although in the final writing, can quickly shift back to the third person as “they”). Second Person Research is illustrated in Figure 4.3. The researcher takes a subjective positivist stand which accords respect to a person as a responsible knowing subject. The researcher tries to understand people’s actions according to the meaning, purpose and intentions of the actors and the latter’s interpretation of the significance of the context of the action (Carr and Kemmis, 1986). Behind this mode is an interest in educating those researched about the meaning, significance, nature, and consequences of their actions in the context of the human, social and historical circumstances under which they act.
First Person Research.

The researchers within the critical theory framework, like Emancipatory Action Research addresses the researched - people in the first person as “we” (as illustrated in Figure 4.4). There is a strong sense of solidarity with the people bound by an ethic of values, rationality, justice and freedom. Not do only the researchers attempt to understand people’s actions in their psychological or historical perspectives, but also the circumstances that shaped up their own understanding. While it is true that consciousness defines reality, it is equally true that reality may systematically distort consciousness. The researcher operates in a continuum of objectivity and subjectivity: treating oneself and one’s fellow (and social structures of which one is a part) both as subject and as object of critical reflection and self-reflection. The researcher aims to develop or improve people’s actions (or practice), understanding of the practice and the situation, and improvement of the situation itself through collaborative action.
Behind this mode is an interest in ... developing the sense that “we” are both the products and producers of history.

Figure 4.4. The researcher as a facilitator and clients as co-researchers (Bawden, 1990).

EMERGING TYPES OF ACTION RESEARCH

One distinct characteristic of an action research is *praxis*: the integration of theory and practice underpinned by wisdom. The theory informs the practice which itself modifies or enriches the theory. The theory and practice of action research itself has evolved through the years of its development. We now have generic terms like Participatory Research (Hall, 1981 and Gayter, 1981); Participatory Action Research (Whyte, 1991); Emancipatory Action Research (Grundy, 1990; and Carr and Kemmis, 1986); and Systemic Action Research (Bawden et al, 1985). With these emerging new
types of action research, I think it is worthwhile to see the similarities and distinctive characteristics which shall be articulated in this section.

At the outset, the distinctions will be noted briefly, thus:

- *Action Research and Participatory Research* are distinct in terms of their ideological perspective. Action Research is guided by a consensus social theory, believing in a possible agreement on a common goal. It is motivated by a goal for efficiency and growth. It is believed that efficiency and effectiveness will improve the situation of all system members. On the other hand, Participatory Research is guided by a conflict social theory, believing in a conflicting interest of societal groups. It is motivated by the goal of equity, emancipation and structural reform of the society.

- *Participatory Action Research* is the same as Participatory Research (Fals-Borda, 1992). The taxonomy is pragmatic to emphasise the action component of a Participatory Research. Whyte's (1991) Participatory Action Research has a strong emphasis on participation, but leaves out its ideological perspective unlike that described by Fals-Borda (1992).

- *Emancipatory Action Research* is strongly underpinned by critical theory. As such it has a central emphasis on emancipation, that is, the liberation of consciousness and the transformation of social reality (Carr and Kemmis, 1986; Grundy, 1990).

- *Systemic Action Research* is a type of Action Research underpinned by Systems Theory (Bawden, et al., 1985).

**Action Research and Participatory Research**

Action Research and Participatory Research are distinct in terms of ideological and value commitments as well as the political economy of its inquiry. The distinction and similarities of these two traditions will be discussed in this section.
Rapaport (1990) defined action research, thus:

Action research aims to contribute both to the practical concerns of people in an immediate problematic situation and to the goals of social science by joint collaboration within a mutually acceptable ethical framework” (Rapaport, 1990:89).

This definition emphasises the importance of both scientific contributions and problem solutions, and stresses the common values and standards that link researchers and clients.

Participatory research has developed mostly from work with the peoples of the developing countries especially where problems of adult education and social oppression are acute (Brown and Tandon, 1983). Participatory Research was described by Hall (1981) as an integrated activity that combines social investigation, educational work and action. Some of the characteristics of the Participatory Research process included the following:

- The problem originates in the community or workplace itself.
- The ultimate goal...is fundamental structural transformation and the improvement of the lives of those involved.
- The workplace or the community (is involved) in the control of the entire process.
- The awareness in people of their own abilities and resources is strengthened, and mobilising or organizing is supported.
- The term researcher can refer to both the community or work-place persons involved as well as those with specialised training.
- (Outside researchers) are committed participants and learners in a process that leads to militancy rather than detachment. (Hall, 1981:7-8).
Below is a tabulated summary of value and ideological similarities and differences between Action Research and Participatory Research.

Table 4.2. Values and ideologies in Action Research and Participatory Research (adapted from Brown and Tandon, 1983:283)

<table>
<thead>
<tr>
<th>ACTION RESEARCH</th>
<th>PARTICIPATORY RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Values</strong>: Useful knowledge</td>
<td><strong>Values</strong>: Useful knowledge</td>
</tr>
<tr>
<td>Developmental change</td>
<td>Developmental change</td>
</tr>
<tr>
<td><strong>Ideologies</strong></td>
<td><strong>Ideologies</strong></td>
</tr>
<tr>
<td>* Individual/Group analysis</td>
<td>* Social analysis (eg. economic dominance)</td>
</tr>
<tr>
<td>* Consensus Social Theory</td>
<td>* Conflict Social Theory</td>
</tr>
<tr>
<td>* Efficiency/growth problems are central</td>
<td>* Equity, self-reliance/ oppression problems are central</td>
</tr>
</tbody>
</table>

Both traditions put a high value on useful knowledge and developmental change. However, they differ in ideological perspectives. Participatory Research assumes that societal groups have conflicting interests and that the plight of the disadvantaged group is a critical problem. They believe that increasing the equity of resource distributions and enhancing the self-reliance of the oppressed groups is critical, even at the expense of economic insufficiency.

Action Research in contrast assumes a common interest in solving problems by analysis of the individual, group and organizational factors. The ideological stance of action researchers emphasises problem solving and the development of knowledge, and they often believe that enhanced efficiency and effectiveness will improve the
situation of all system members, even if short term effects concentrate wealth and power in relatively few hands.

Brown and Tandon (1983) further considered the political economy of inquiry (which is defined as the interaction of political and economic factors that affect decision making) in Action Research and Participatory Research. They argue that political economies encourage choices that produce very different research analyses and problem solutions. Table 3 summarises the political economies within which the two traditions are embedded.

Action Research and Participatory Research share the same values and employ similar methodologies. However, they differ in ideologies and political economies. With this, Brown and Tandon (1983) propose that:

Action research strategies will be appropriately employed when distribution of resources and authority are accepted as legitimate, when the relevant parties accept research as credible, and when rewards are available for integrating problem solving and research [and that];

Participatory research strategies will be appropriately employed when the legitimacy of power and resource distribution is questioned, when client groups are aware and mobilised to influence their situation and when resources are ideologically committed to social transformation (Brown and Tandon, 1983:290-291).
<table>
<thead>
<tr>
<th></th>
<th>ACTION RESEARCH</th>
<th>PARTICIPATORY RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTORS</td>
<td>Researchers</td>
<td>Researchers</td>
</tr>
<tr>
<td></td>
<td>Client systems</td>
<td>Client groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Established authorities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Third party funders</td>
</tr>
<tr>
<td>RESOURCES AND</td>
<td><em>Researchers provide research expertise</em></td>
<td><em>Researchers provide research expertise</em></td>
</tr>
<tr>
<td>AUTHORITY</td>
<td><em>Client system provide sanction</em></td>
<td><em>political awareness</em></td>
</tr>
<tr>
<td></td>
<td><em>insights</em></td>
<td><em>energy</em></td>
</tr>
<tr>
<td></td>
<td><em>information</em></td>
<td><em>insights</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>information</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Established authorities provide sanction</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>power</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>funds and rewards</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>Third party provides</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>funds</em></td>
</tr>
<tr>
<td></td>
<td></td>
<td><em>protection</em></td>
</tr>
<tr>
<td>IMPACTS ON PHASES</td>
<td></td>
<td>Controlled by client group</td>
</tr>
<tr>
<td>1. Problem definition</td>
<td>Shared by researchers and client system.</td>
<td>Benefits provided to client group</td>
</tr>
<tr>
<td></td>
<td>Resources and sanction from system leaders</td>
<td>Resources derived from client or extracted from system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Collaborative with clients;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>adversarial with authorities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Iteration to educate and mobilise client groups</td>
</tr>
<tr>
<td>2. Data Collection and Analysis</td>
<td>Collaborative with the whole system</td>
<td>Client consensus on goals of intervention</td>
</tr>
<tr>
<td></td>
<td>Iteration to system wide shared diagnosis</td>
<td>Negotiation to improve client situation</td>
</tr>
<tr>
<td>3. Uses of results</td>
<td>Systemic consensus on goals of intervention</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Problem solving with systemic benefits</td>
<td></td>
</tr>
</tbody>
</table>

The sensitivity of Participatory Research to issues of power and resource distribution and its commitment to social transformation is similar to that Critical Systems Thinking (CST) (Fairtlough, 1991; Jackson, 1991; Flood and Jackson, 1991).
Action Research and Critical Systems Thinking

This review of Critical Systems Thinking (CST) alongside Action Research is aimed at shedding light on the development of my research methodology. The “spiral” of research methodologies that has guided this research is underpinned by Systems Theory particularly the ideological principle of emancipation found in CST.

Critical Systems Thinking is a fairly new intellectual tradition. Compared to Action Research which can be traced back to the 1940s, Critical Systems Thinking started in the 1980’s with Checkland’s critique of the Hard Systems Thinking (Jackson, 1991:132). Mingers (1980) pointed out the similarity between Critical Theory of Habermas and Soft Systems of Checkland. Both strands of thinking start from similar classification of human action (purposeful activity on one hand, and communicative activity on the other). They react in similar ways to the inadequacy of “hard” systems thinking and they both aim to develop a rational approach to communicative interaction which they hope will allow people to find their own solutions to problems facing them. However, as Fairtlough (1991) pointed out, Checkland left out a critique of society as a whole and of its influence on those involved in problem solving. It is this limitation of soft systems thinking that led to the convergence of critical theory and soft systems thinking into Critical Systems Thinking.

A summary of the five commitments of Critical Systems Thinking, according to Jackson (1991) follows:

1) Critical Awareness - concerns rigorous discrimination of the strengths and weaknesses of the methodology itself, the underlying theories and assumptions influencing systems designs.

2) Social Awareness - considers the consequences of the approaches employed.
3) Complementarism at the Methodological Level - this requires sensitivity to the appropriateness of the methodology to be used.

4) Complementarism at the Theoretical Level - this considers the appropriateness of the theoretical rationality that guides systems thinking and practice.

5) Human Emancipation - CST is dedicated to human emancipation and seeks to achieve for all individuals the maximum development of their potential. This is to be achieved by raising the quality of work and life in the organizations and societies in which they participate. CST aims to serve what Habermas calls the “knowledge-constitutive interests” which follows:

- Technical interest which assists material well-being by improving the productive potential and the steering capacities of social systems;
- Practical interest which aims to promote and expand mutual understanding among the individuals and groups participating in social systems;
- Emancipatory interest which protects the domain of the practical interest from inroads by technical reason and ensures the proper operation of the practical interest by denouncing situations where the exercise of power, or other causes of distorted communication, are preventing the open and free discussion necessary for the success of interaction (Jackson, 1991:141).

Critical Systems Thinking reveals its dedication to emancipation, and seeks to fulfil this through the use of appropriate systems methodologies relating to each of Habermas’ human interests (Jackson, 1991 and Ulrich, 1988).

Levin (1994) called Action Research and Critical Systems Thinking “two icons carved out of the same log” considering that both intellectual traditions support the process of emancipation. He tried to relate Action Research with Critical Systems Thinking. He went on to cluster the reviews of Action Research and Participatory Research by Brown and Tandon (1983), the work of Whyte (1984 and 1991) on Participatory Action Research and of Reason (1988) on the Human Inquiry Paradigm,
and seemingly considered them as different varieties of Action Research. He then pulled-out some threads of commonality with Critical Systems Thinking.

To compare the two intellectual traditions, Levin (1994) looked at how the professionals (action researchers and critical systems thinkers) interacted with real-world problems. He found that Action Research intended to support change, while systems practitioners developed systems that inevitably invoked changes in organizations and communities. Both traditions have emancipation, empowerment and liberation as its underlying values. At this point he made an argument that "emancipation is linked to and can not be separated from the process by which it is acquired; [and that] emancipation can never be achieved unless those involved participate in the process" (Levin, 1994:28). He argued further that emancipation results from a process where people can use theoretical formulations to create meaning supporting practice. Three core questions in the meaning construction process were raised:

(1) Is the theory understood and based on the peoples' interests?
(2) Are the research questions relevant for the people?
(3) Are people emancipated to act in their own interest?

Based from the above questions, Levin (1994) compared Action Research and Critical Systems Thinking.

(1) Theory and People - Is the theory understood by the people and based on their interests?

Early works on action research (e.g. Lewin, 1951; Trist and Bamforth, 1951 and Rice, 1958) had a strong researcher domination, although later work emphasizes participants' control over the research process (Gustavsen and Engelstad, 1986) and that theory be accessible to participants (Gustavsen, 1992). In Critical Systems Thinking, Levin (1994) shows that it requires a steady interaction between theory and
practice and that conceptual models have to be tested out with the people involved, as a learning process. As to theory and practice, both intellectual traditions argue heavily for practical relevance or the criteria of usefulness for solving practical problems.

(2) Theory and Practice - Are the research questions relevant for the people?

Based on his review of Action research particularly of Lewin (1951) and Participatory Action Research of Fals-Borda and Rahman (1987), Levin (1994) argued that “all branches of Action Research have been committed to solve practical problems. This is obviously the strongest common trait in the whole tradition.”

Critical Systems Thinking argues in the same direction. As Jackson (1991) argues, the point of CST is “to provide useful, theoretically sound approaches to problematic situations, which will assist in the larger project of social change”. Flood (1990) likewise argues that “the challenge of practice has long been accepted as the challenge for systems methods”.

(3) Practice and People- Are people emancipated to act in their own interest?

Except for that which has been developed in North America (Brown and Tandon, 1983), Action Research has a strong commitment to the empowerment ideal (Emery and Thorsrud, 1976; Gustavsen, 1985 and 1992; Fals-Borda, 1987). Similarly, Critical Systems Thinking holds liberation and emancipation as its central values (Flood, 1990; Jackson, 1991; Flood and Jackson, 1991).

This comparison of Action Research and Critical Systems Thinking led Levin (1994) to conclude that:

“... both AR and CST are carved out of the same log, but the icons are different. The wording, theoretical platform, and discourse within each tradition have a different presentation” (Levin, 1994:36).
Participatory Action Research

What Brown and Tandon (1983) referred to as Participatory Research, Fals-Borda (1992) calls Participatory Action Research. In his view, there is no significant differences between Participatory Research and Participatory Action Research saying “We prefer to specify the action component as we want to make the point that we are talking about action research that is participatory, and Participatory Research that unites with action (for transforming reality)”. The type of Participatory Action Research described by Fals-Borda (1992) is that which has evolved from the Third world countries in support of the “subordinate classes, the poor, the peripheral, the voiceless, the untrained, the exploited grassroots in general”. It is the type of research that seeks to create knowledge for social transformation as its primary intent and critical concern.

We should recall that Participatory Action Research, while emphasising a rigorous search for knowledge, is an open-ended process of life-and-work, or vivencia; a progressive evolution toward overall, structural transformation of society and culture; a process that requires ever renewed commitment; an ethical stand, self-critique, and persistence at all levels. In short it is a philosophy of life as much as a method” (Fals-Borda, 1992:18).

Whyte’s (1991) Participatory Action Research has a strong emphasis on participation, but leaves out its ideological perspective, unlike that described by Fals-Borda (1992). According to Whyte (1991), Participatory Action Research evolved out of three streams of intellectual development and action: (1) social research methodology; (2) participation in decision making by low-ranking people in organizations and communities; and (3) socio-technical systems thinking regarding organizational behaviour. It is the search for unity of theory and practice that led to the emergence of a Participatory Action Research.
Whyte et al (1991) distinguished Participatory Action Research from a conventional applied research by its participative nature. In a Participatory Action Research, members of the organization or community of study are “actively engaged in the quest for information and ideas to guide their future action” (Whyte et al, 1991).

Participatory Action Research in agriculture emerged as an alternative to the failure of the technology transfer model of research and development to respond to the needs of small, principally subsistence farmers (Whyte, 1991). It is advocated that in Participatory Action Research, some of the people in the organization or the community under study participate actively with the professional researcher throughout the research process, from the initial design to the final presentation of results and discussion of their action implication (Whyte et al, 1991). However, a review of some of Participatory Action Research in agriculture by Whyte (1991), Ortiz (1991) and Ruano (1991), indicates that Participatory Action Research is just another version of transfer of technology. Participation of farmers apparently is used as a means to hasten “diffusion of technology” (Whyte, 1991) or generate a “multiplier effect” in technology transfer (Ortiz, 1991). As Cernea (1991) also warned:

We hear sudden declaration of fashionable support for participatory approaches ... social scientists should not confuse these statements with actual participatory planning, because under the cloud of cosmetic rhetoric, technocratic planning continues to rule Cernea (1991:14).

Participatory approach has gained world wide recognition in various fields leading to terminologies like “Participatory Action Research” (Whyte, 1991), “Participatory Technology Development”, (Jiggins and Zeeuws, 1990) and “Participatory Evaluation” (Fernandez and Tandon, 1983).

Although the interest in farmer participation arose later in agriculture than in industry, the spread of participatory approaches in small farm agriculture has been extraordinarily rapid. In 1989, the Overseas Development Institute in London
published 340 abstracts on Farmer Participatory Research of which more than sixty percent were published in the 1980s-90s (Whyte, 1991). The variety of participatory methodologies (Table 4.4) in agriculture are considered to contain the “germs of a revolution in agricultural development” (Cornwall et al, 1994).

Table 4.4. Some participatory methodologies which have developed since the 1970s (in alphabetical order).

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEA</td>
<td>Agroecosystem Analysis</td>
</tr>
<tr>
<td>BA</td>
<td>Beneficiary Assessment</td>
</tr>
<tr>
<td>DELTA</td>
<td>Development Education Leadership Teams</td>
</tr>
<tr>
<td>D&amp;D</td>
<td>Diagnosis And Design</td>
</tr>
<tr>
<td>DRP</td>
<td>Diagnostico Rural Participativo</td>
</tr>
<tr>
<td>FPR</td>
<td>Farmer Participatory Research</td>
</tr>
<tr>
<td>FSR</td>
<td>Farming Systems Research</td>
</tr>
<tr>
<td>GRAAP</td>
<td>Group de Recherche et d’Appui pour l’Auto-promotion Paysanne</td>
</tr>
<tr>
<td>MARP</td>
<td>Methode Accelere Recherche Participative</td>
</tr>
<tr>
<td>PALM</td>
<td>Participatory Analysis and Learning Methods</td>
</tr>
<tr>
<td>PAR</td>
<td>Participatory Action Research</td>
</tr>
<tr>
<td>PD</td>
<td>Process Documentation</td>
</tr>
<tr>
<td>PRA</td>
<td>Participatory Rural Appraisal</td>
</tr>
<tr>
<td>PRAP</td>
<td>Participatory Rural Appraisal and Planning</td>
</tr>
<tr>
<td>PRM</td>
<td>Participatory Research Methods</td>
</tr>
<tr>
<td>PTD</td>
<td>Participatory Technology Development</td>
</tr>
<tr>
<td>RA</td>
<td>Rapid Appraisal</td>
</tr>
<tr>
<td>RAAKS</td>
<td>Rapid Assessment of Agricultural Knowledge Systemss</td>
</tr>
<tr>
<td>RAP</td>
<td>Rapid Assessment Procedures</td>
</tr>
<tr>
<td>RAT</td>
<td>Rapid Assessment Techniques</td>
</tr>
<tr>
<td>RCA</td>
<td>Rapid Catchment Analysis</td>
</tr>
<tr>
<td>REA</td>
<td>Rapid Ethnographic Assessment</td>
</tr>
<tr>
<td>RFSA</td>
<td>Rapid Food Security Assessment</td>
</tr>
<tr>
<td>RMA</td>
<td>Rapid Multi-perspective Appraisal</td>
</tr>
<tr>
<td>ROA</td>
<td>Rapid Organizational Assessment</td>
</tr>
<tr>
<td>RRA</td>
<td>Rapid Rural Appraisal</td>
</tr>
<tr>
<td>SB</td>
<td>Samuhil Brahman (Joint trek)</td>
</tr>
<tr>
<td>TFD</td>
<td>Theatre for Development</td>
</tr>
<tr>
<td>TFT</td>
<td>Training for Transformation</td>
</tr>
</tbody>
</table>

Adapted from Cornwall et al (1994:31)
However, in many of these approaches (e.g. Beneficiary Assessment, Farming Systems Research, Diagnosis and Design, Agroecosystem Analysis and Rapid Rural Appraisal) rural people’s participation is limited to providing information to researchers whose analysis generates solutions to be approved by farmers. Other approaches (e.g. Participatory Action Research, Participatory Rural Appraisal, Development Education Leadership Teams and Theatre for Development) aim to enable rural people to explore their own visions and solutions (Cornwall et al., 1994).

These “new methodologies”, however, are confronted with some institutional constraints. According to Farrington et al (1993):

> While the literature on the methods for promoting farmer participation has burgeoned over the last decade, we lag far behind in understanding how that participation can be institutionalised (Farrington et al., 1993:xvii).

Or shall we give heed to the challenge posed by Greenwood (1989) of considering who defines the questions to be researched?

Despite the enormous literature on participation, it is yet not easy to find a single, comprehensive definition of this concept. Oakley (1991) presented a range of interpretations of participation which can also reflect interpretations of development:

- “Community participation (is) an active process by which a beneficiary or client groups influence the direction and execution of a development project with a view to enhancing their well-being in terms of income, personal growth, self-reliance or other values they cherish” (Paul, 1987 in Oakley, 1991:115).
- “With regard to rural development … participation includes people’s involvement in the decision making process in implementing programmes and their sharing in the benefits of development programmes” (Cohen and Uphoff, 1979 in Oakley, 1991:116).
- “Participation is concerned with … the organized efforts to increase control over resources and regulative institutions on the part of groups and movements of those
hitherto excluded from such control” (Pearse and Stiefel, 1980 in Oakley, 1991:116).

The issue I would like to bring out is the distinction between participation as a means or an end, which is provocative of a very philosophical debate. Participation as a means implies some form of pre-determined goals. To achieve it effectively, it would encourage or even coopt for participation. The emphasis is not so much on the process of participation as it is on its outcomes. No matter how sincere the intent of any development effort to help the people, this type of participation can fall to “utilising” people to achieve predetermined targets, discretely downgrading the dignity of a human being.

Participation as an end is an entirely different concept. With it is a respect that human beings are responsible knowing subjects, who are capable of knowing what is good, not only for themselves and their community, but also for the much larger community of the world. Oakley (1991) considers participation as an end when he wrote:

[Participation is] a process which unfolds over time and whose purpose is to develop and strengthen the capabilities of rural people to intervene more directly in development initiatives. Such a process may not have a predetermined measurable objectives or even direction. As an end in itself participation should be a permanent feature of any development project, an intrinsic part which grows and strengthens as the project develops. Participation as an end is an active and dynamic process which enable people to play an increasing role in development activities (Oakley, 1991:116).

**Emancipatory Action Research**

Emancipatory Action Research is discussed in earlier part of this section.
Systemic Action Research

The action research process developed by Bawden et al (1985) has emerged out of a quest for an agricultural research paradigm that would view agricultural issues in their complex wholeness and that could lead to feasible and desirable improvements. The search for these feasible and desirable changes necessarily requires the involvement of the farmers, constantly keeping in mind, “what constitutes an improvement” and “who decides it”. With the intent to be able to embrace both the physical ecosystem which the farmers manipulate, and the socio-economic system with which they interface, they have developed the concept of a hierarchy of methodologies for researching problems of increasing complexity (as shown in Figure 4.5).

It should be noted that the hierarchy corresponds to the level of complexity of the issue under investigation. The methodologies range from reductionist to holistic and the choice of approaches is contingent upon the problem situation or the stage in the research process. A range of methodologies exist at each level. In this, Bawden (1990) also suggests that the spiral is an open-ended one. Earlier on, Bawden et al (1984) assert that “studying the problems of agriculture should start with the whole situation before its reduction to constituent parts”. In this research I started with the soft systems level in an attempt to learn from the lessons of agricultural research in its inadequacy to respond to the needs of farmers by “putting the last first”, (Chambers, 1987). (It must be noted that the critical heuristic came out later as part of the spiral and was not used as a conscious guide in the research process.)
The type of action researching suggested by Bawden (1990), Bawden and Packham (1993) and Bawden et al (1985) rests heavily on principles of adult learning, systems thinking and critical theory.

It is considered critical because of the following points:

1) its processes and outcomes are subjected to critical public review;

2) the disposition of the researcher is such that they seek improvements of the situation through transformed social actions;

3) the researchers are conscious to critique everything as they go along from the nature of the world to start with to the science of the science being employed in explanation; and
4) the system, through its activities, makes a significant difference in leading to a better world. (Bawden, 1990:40)

It is systemic because: (a) the actors and the issues they face are coupled through appreciative relationships; (b) the process of the researching or learning consists of dynamic, dialectical relationships between the concrete and the abstract, between reflection and action, between theories and practice, between methodology and methods; and (c) the human activities that comprise the system together interact with the environment in ways which influence it (Bawden, 1990).

Angela Brew (1988) argue that “research is learning”. This idea has been articulated further by Bawden (1990) saying that “researching is learning and learning is researching”. That “action researching is learning with the special intentions of achieving social action whilst concomitantly adding to public knowledge” has been argued much earlier on by Lewin (1951).

Action research begins when the researcher joins an individual or group of people who are concerned about improving their situation (Bawden, et al., 1985). Action research continues as it achieves the four outcomes which are placed in the context of, and are subjected to the critique from public knowledge (Bawden, 1990):

1) The practice of the practitioner researcher is improved.
2) The understanding of the practice by the practitioner is improved.
3) The situation in which the practice is practiced is improved, and
4) The understanding by, the practitioner, of the situation in which the practice was practiced is improved (Bawden, 1990). Bawden (1994) suggested a fifth outcome -
5) That the research process and outcomes contribute to social knowledge. In a sense, that the learning outcomes can be shared to other similar situations.
In brief, the action research advocated by Bawden (1990), Bawden and Packham (1993), Bawden et al (1985) has for its aim the improvement of the problem situation by facilitating learning and decision-making by its participants.

A FRAMEWORK FOR THE METHODOLOGY OF THIS THESIS

The Participatory Systemic Action Research I refer to in this thesis is illustrated in Figure 4.6. It has similarities with Emancipatory Action Research referred to in Carr and Kemmis, (1986), that seeks a more rational, just, democratic and fulfilling social realities.

In a conceptual framework, the Participatory Systemic Action Research that has evolved in this research process has come out of the “marriage” of the Participatory Research and Action Research in its ideological perspectives. With the influence of Participatory Research, I also recognise the conflicting interests of societal groups and that the plight of the disadvantaged is a critical problem. Participatory Researchers conceive of the world in terms of conflict theories of society (Dahrendorf, 1959). So the recurring themes of Participatory Research are equity, emancipation and structural reform of the society (Freire, 1972). My preferential option for the poor has found a resonance in this ideological underpinning of Participatory Research.

On the other hand, I recognise that our people may hold different paradigmatic perspectives relative to community development so that apparently opposite theories are accommodated in my framework for the methodology of this research. The consensus social theory underpinning Action Research also had a place in the development of our community where there was a possibility people could agree to some shared aspirations, a common vision.

My research was motivated by a quest for a desirable change. With a new way of looking at rural development, particularly the “human scale development” (Max-Neef,
"people-centred development" (Bawden and Macadam, 1990), "putting the last first" (Chambers, 1987), it is almost "reactionary to propose a development strategy which is not participatory" Oakley (1991). It is recognized that participation can lead to emancipation such as that expressed in the metaphorical title *We Make the Road By Walking* (Horton and Freire, 1990). It encourages self-reliance among the participants, and increases the number of people who can benefit from development (Oakley, 1991) while also sustaining the process (Jiggins and Zeeuws, 1990).

The Participatory Systemic Action Research that has evolved in this research process has been influenced by different intellectual traditions as illustrated in Figure 4.6, the type of Action Research that is systemic and critical (Bawden, 1990), emancipatory (Carr and Kemmis, 1986) and participatory (Fals-Borda, 1987; 1992).

![Figure 4.6. Participatory Systemic Action Research used in this research: its influences.](image-url)
In my journey towards Participatory Systemic Action Research, my point of departure was agriculture. It was inspired by a desire for agricultural research which would be relevant to the needs particularly of small farmers.

Farming Systems Research (Gartner, 1990) developed out of the realisation that much agricultural research was not responsive to the needs of the small farmers and much of the technology generated was not readily adopted. Farming Systems Research is considered a major innovation in agricultural research, involving farmers in some stages of the research and its development. Yet, the conceptualisation or problem identification still rests in the minds of the “experts” (Bawden, 1992). In a sense, farmers are only involved in the “try-out” under farm conditions of some findings done in research stations.

This inspired me to do a type of Action Research where the researcher facilitates the learning of the clientele-participants in a problem situation. In the recursive flow of “finding out” and “taking action” the clientele-participants in this research are fully involved. In a sense, the people involved participate in the entire research process, except that of thesis writing which is done by the researcher.

In my journey towards Participatory Systemic Action Research, I find myself in an interplay of theory and practice in the context of a rural community in the Philippines. The two distinct components of this Participatory Systemic Action Research is illustrated in Figure 4.7, with some insights adapted from Perry and Zuber-Skerrit (1990).

This Participatory Systemic Action Research gives a central emphasis on participation by the people concerned: the academe of the School of Agriculture and Rural Development, University of Western Sydney, Hawkesbury and the rural community.
of San Fernando in Camarines Sur, Philippines, throughout the research process. It is participative that allows "a deep participation with another" (Pinn, 1989).

This research was participative in that it allowed us "a deep participation with another" (Pinn, 1989). Our research was a participation with one another, individually and collectively -

in dreaming and fulfilling
in feeling and thinking
in reflecting and acting
in praying and involving
in researching and improving

a situation such as ours, a rural community of San Fernando.
Figure 4.7. The interplay of theory and practice in a context of a rural community.

RECAPITULATION

The review on action research established the theoretical framework upon which the Participatory Systemic Action Research hinges. The different intellectual traditions supporting the theoretical framework have some commonalities such as valuing useful knowledge and developmental change as well as differences particularly the context of origin and underpinning theories.

Distilling from the different intellectual traditions the essence relevant to my research, led to the development of a Participatory Systemic Action Research. It carries with it the characteristics of a Participatory Research, Systemic Action Research particularly their emphasis on participation which is inherently emancipatory.

The Participatory Systemic Action Research was actualised through systems methodology which will be articulated in the next chapter (5).
Chapter 5
First Phase:

Exploring The Broader
Issues of Community Development

The most important feature of the systems approach is that it is committed to ascertaining not simply that the decision makers’ choices lead to their desired ends, but whether they lead to ends which are ethically defensible.

(Churchman, 1979; translation of the underlined plural nouns is mine; it is singular in the original).

INTRODUCTION

With a burning enthusiasm to share my conviction that life indeed can change and we can act as one people learning and working together, I returned home for the first phase of this research in July, 1991. I was excited to think that I would be encountering our people in a different sort of activity - a research project. Involving people in research was something new for me. There was so much pride in my heart in coming “empty-handed of solutions,” but with that openness and sensitivity to learn with them in exploring possibilities - how we could improve the situation in our community. Isn’t it a due recognition of the wisdom of our people?, and the pride is, I am one of them, too. The value of learning from the people of the community has been receiving growing recognition expressed through such ideas as “indigenous knowledge”, “indigenous technical knowledge” or “indigenous knowledge system” (Bebbington, 1991; Chandler, 1991; den Biggelaar, 1991; Flora, 1992; Groendfeldt 1991; Kloppenburg, 1992; Molnar, et al, 1992).
The very process of involving the people in a community is itself an assertion of their capacity to re-create the world, to transform their realities of life. This affirmation has a power in itself to unleash some social energies capable of collective action.

There were two main threads upon which the whole “tapestry” of the research process was interwoven (Chapter 4, Figure 4.7): One was the search for improvement of the situation in our community always keeping in mind the questions "what constitutes an improvement" and “who defines it”. The other was, the examination and development of the Spiral Of Research Methodologies which emerged from the context of Systems Agriculture. The basic research question was: “Will the Spiral of Research Methodologies’ of research methodologies be a heuristic for sustainable community development?”

METHODOLOGICAL FRAMEWORK

The Participatory Systemic Action Research that evolved through our research process was guided by the Spiral Of Research Methodologies (Bawden, 1985) that is characteristically systemic and critical (Bawden, 1990), emancipatory (Carr and Kemmis, 1986) and participatory (Fals-Borda, 1987 and 1992).

The Spiral of Research Methodologies

The choice was made to use the Spiral of Research Methodologies (Figure 4.5) as a guide to this research. What appealed to me was the broad range of choices it offered,
from soft systems methodology to reductionist science depending on the epistemic nature of the problem.

At the initial stage of this research the Spiral of Research Methodologies served as a useful conceptual device for holding different interests and paradigmatic perspectives (Chapter 3). It enabled me to hold an interest about animal nutrition while grounding it in the context of the rural community of San Fernando. I wanted to pursue that interest, but in the broad perspective of community development and with the participation of the people involved in the situation. I initially thought of moving through the different levels of complexity, starting from soft systems where I hoped to come up with a broad concept of how to improve the situation in our community, to hard systems where I hoped to focus on the farming systems, looking at agricultural productivity and improving its performance, then moving to applied research where I hoped to do an on-farm trial on a technical issue identified through the other levels of inquiry and with active participation of the farmers and then to basic research if there was a need for further exploration of any relevant basic questions (in animal nutrition).

The Soft Systems Methodology

A Participatory Systemic Action Research model was constructed using the Soft Systems Methodology to guide this research. It is integrative of systems theory, and dialogical theory and propelled by the ideological perspective of Participatory Research as articulated in Chapter 4.

As will be discussed in this Chapter, the research process was underpinned by the multiple paradigm articulated in Chapter 3. The inquiry about the situation and exploring possibilities of improvement engaged us in both the subjective and
objective process of researching. Consistent with the paradigmatic pluralism I hold is
the methodological pluralism that will be evident in this Chapter.

In an outline, the research activities we have done correspond to the different stages of
Soft Systems Methodology (SSM) (Figure 5.1). The methodology as used in this First
Phase of the research can be seen to consist of three main parts:

**Part 1 - Getting into the Research Dynamics**

Getting into the Research Dynamics corresponds to the Prephase (Figure 5.1). This
discusses the preparatory stage of the research which include the organizing of the
research team, aptly called in this text, the core group. It will also highlight the level
of participation of the people in the community.

**Part 2. Understanding the Situation of the Community**

The understanding of the situation of the community was done by building a picture
of its socio-economic and political climate and what this means to the people. This
was done through various processes of inquiry listed down in the SSM model (Figure
5.1) as Initial Picture and Rich Picturing.
Figure 5.1 Soft systems methodology as used in this research.
PART I- GETTING INTO THE RESEARCH DYNAMICS

The notion of Pre-phase was adapted from Peters (1979) phase zero which involves designing a system to undertake the systems inquiry itself. For despite the clarity of the Participatory Systemic Action Research research in its general framework, it does not tell the researcher how to start her work. In this research, the Prephase referred to the organizing of the research team who helped me in planning and implementing the research activities as guided by the methodology. For example, it was with the core group that the inquiry for building a rich picture was conceptualised. It was also the core group who helped me in sensing the research direction by being continually sensitive to the meaning that unfolded through the process.

FORMATION OF THE CORE GROUP

The process of forming the research core group will be narrated in this section. The narration will introduce the core group members and highlight our friendly relations that influenced a sustained commitment of the core group to the research process. The narration will also unfold a glimpse of our personality dynamics which turned out to be significant in our teamwork and development of competence in facilitation, discussed in Chapter 8. Reason (1988) recognized that “co-operative research is enormously demanding; we all need well-informed friends who can and will support us, and travel some of the road with us.”

The core group had a role both in a technical sense and as very strong affective support for me. The whole three years we spent together in our Participatory Systemic Action Research was challenging, but it was also enjoyable. I felt what Estes (1992) believes that: “We are strong when we stand with another soul. When we are with another we can not be broken.” It is most likely this dynamic that makes me enjoy working in a team or in a group.
The idea of forming a research team was also influenced by the critiques on the inadequacy of "specialisation" in dealing with complex problems such as those occurring in agroecosystems (Conway, 1983; Sajise, 1988), issues of feminism or problems of human experience and action (Laws, 1978; Parker and Sofiarini, 1995), and the complexity of rural development (Chambers, 1993). It goes along with these ideas that the members of the team should have different specialisations or have different disciplinary background.

In choosing members of the core group, I considered these criteria:

1) involvement in community development endeavour;
2) background in research;
3) willingness to learn-and-research;
4) interest in helping our people.

The variety of our work experience and our discipline orientation was more of a nice coincidence than a design.

The Core Group Members

What follows is a narration of how the core group was formed. It will be noted that our friendship and previous involvement in our community proved valuable in our research.

I talked to my youngest sister, Gemma, about my research and asked if she would be happy to join me. The idea of research appealed to her. She had just finished a B.S. in Agriculture major in agricultural education. Prior to this research we worked together in 1990 in organizing the data of the socio-economic and physical profile of San Fernando which I was commissioned to write. Aside from the big sister - small sister relationship we also worked together in the music ministry in the Church and with the youth movement during the historic "people's power movement" in 1986. We have
enjoyed being together not only at home, but also in our social activities. Our joint social involvement ranges from an agricultural youth club to a socio-religious organization.

We went together to visit my cousin-and-friend, Manay Letty. Her query about my studies opened up the occasion to speak about my research, and when I said, “please join me”, she responded with “What? I don’t know about research. I never heard about Participatory Systemic Action research. What is systems about? “Oh, but of course I’m interested in community development.” “And how can I say ‘no’ to you?” I knew beforehand that she would be enthusiastic. She is an accountant and has worked in the Department of Finance, has been a Provincial Treasurer and a Provincial Accountant. She has also been involved with social and religious activities in our community.

Being a very energetic and lively person she asked after a very short while: “Now, what shall we do?” Then I explained to her that we were just at the stage of organizing the research team we call a “core group”. Then the three of us considered who the other three members of our core group could be.

We thought of Dadz (Diosdado San Antonio). We had lots of interactions previously in various socio-political and religious activities in our community. He has finished B.S. in Industrial Education (cum laude) and is the principal of Pamukid High School. At the time he was finishing his Master of Arts in Education, but despite being busy with his studies and his profession, when we invited him, he was as enthusiastic as we were. “This is such a new way of researching. I’d love to share what I can, but I think I will be learning a lot more. But please orient me about how to do it.” The following weekend marked the first of a series of our core group meetings to be held almost every weekend thereafter.

Then we considered Ate Chie (Ester Ibarreta Callo). She is not from our community, but since she had married the municipal development officer we considered her as
coming from our own community. She was equally enthusiastic as we were. She is very lively and cheerful, attributes which in our series of workshops and dialogues with the people made us feel secure that we would not run out of “ice-breakers”, from action songs to some games. She is an associate professor teaching humanities in a state agricultural college. Her first degree was in social science and at the time of our research she was finishing a Ph.D. in educational management. Despite being busy with her career, her studies and family she gave generous time to this research.

Then we had to ask her who she could suggest to join us. Very easily she suggested (5) Nick (Nicasio Noora) who also was very agreeable to the group, and who himself was happy to join us. He was the barangay captain of Beberon, and at the same time the president of all barangay captains of the town, an elected position. He did his first degree in Agribusiness and at that time was doing his Masters in Agricultural Extension. His special contribution to the research was his forte in coordination with the different barangay officials. When we held dialogues with the people in the barangays he knew most of the participants.

Later, when he had to leave our research work, the core group unanimously thought of (6) Manong Layo (Hilario Romero, Manong means brother), who is an agricultural technology officer whose special interest and education is in animal science.

Fortunately, too, we had (7) Maam Lourds (Dr. Lourdes G. Laniog), who also became my external supervisor and who worked with us all throughout the research process. She is the Vice President for Academic Affairs in a polytechnic college and has been teaching postgraduate studies at the University of Saint Anthony. She has been advising PhD students and has been teaching statistics and research. It was she who posed a lot of questions about how I was doing the research. She was concerned about letting the process unfold by itself, open to the influence of its participants. She was also concerned about the possibility that I might be lost in the great immensity of coverage which could become unmanageable. She was keen to ensure the
predictability of outcomes while I was being encouraged to just “trust the process” following the Participatory Systemic Action Research which meant remaining open to surprises, allowing things to emerge and reveal their meaning intuitively and through critical reflection.

**The Role of The Core Group**

Working with a core group, the idiosyncrasies and problematic issues arising from a single investigator can be countered (Wild, 1981) and the difficulties inherent in solitary reflection which can lead to self-deception can be overcome (Habermas, 1974). Basically, the core group collaborated with me in these cycles of reflection and action for every activity of this research. While there were many other participants in these cycles it was with the core group that a more frequent and deeper level of reflection occurred. Hope et al. (1984) call this a double cycle of reflection. The core group took part in the reflection with all other participants and reflected further about it in our small core group. While all other participants participated in a broader framework of planning, it was the core group who looked into its necessary details and refinement of concepts.

In the core group, my role was usually to facilitate reflection and planning. However, as the process continued we shared this facilitation role particularly in our various workshops and dialogues with the people.

The role of the core group was to flow with the research process and to be particularly sensitive to and continually discerning of its direction through coherent reflection (Heron, 1988). Specifically the core group collaborated with me in the following roles:
• **Facilitation of small group discussion during the workshops and dialogues.**
  Bringing an issue to a larger group of participants, we realized that it was more effective and more energising to oftentimes break into small groups. Small groups discussion allowed greater participation. For every small group we usually ensured that there was one core group member facilitating or listening to the discussion;

• **Taking notes and documentation of the process and content of the small group dynamics.**
  Usually after small group discussions and dialogues, we went back to the large group structure, with each group sharing what had happened. Then the large group tried to come up with some tentative meanings and a tentative choice of options or course of action. Then back in the core group again we do critical reflection.

• **Critical Reflection.** We do this by reviewing what happened in the workshops and dialogues, reflecting deeper, making meaning of the reflection and insights from the people then plan the next course of action;

• **Operational planning for the next course of action.**
  As it happened, sometimes we had to go deeper into the gathering of “data” in our effort to come up with a “coherent reflection” and meaning. We worked closely together in every research activity. Whenever I expressed my appreciation and gratitude for their continued support they would tell me, “You are not alone. We are by your side.”

• **Systems Thinking..**
  At a certain point when we sensed that we had gathered enough data (or our picturing of the situation was rich enough), we held a series of mini-workshops for the purpose of identifying the relevant systems and the construction of conceptual models. I shall discuss this further later in this chapter.

**A GLIMPSE OF PEOPLE’S PARTICIPATION**
Encouraging greater participation of the people in our community has always been at the heart of our research process. Action research can be described as democratic research involving all people concerned with the problem in a collaborative effort to change the situation according to shared aspirations or a shared vision. (Altrichter et al., 1990).

Alongside this idea of participation “of all people involved” is the argument of Reason (1988) that, establishment of authentic collaboration is one criterion for the validity of an inquiry. He further argues that, “in ‘full-blown’ cooperative experiential inquiry a group of co-researchers engage in every point of the cycle in a fully collaborative fashion” (emphasis added). He recognises however, that between these idealised extremes are a wide variety of possible relationships. He argues that at a minimum, “all should contribute to the creative thinking that is part of the research, and that relationships should aim to be authentically collaborative ... The form of cooperative inquiry can range from full collaboration through all the stages of inquiry, to genuine dialogue and consultation” (at various stages of the research).

San Fernando has a total of 3,591 households. Considering this huge number we developed what I call a “dialogic grouping” that allowed as much participation by the people in our community as possible at various stages of the research process. Starting with a core group, the dialogic grouping had an ever increasing number of participants. Its increasing mass base can be likened to that of a pyramid, as in Figure 5.2 (which should not be interpreted as a hierarchy of importance):
Approximate number of Participants

<table>
<thead>
<tr>
<th>Role</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitator</td>
<td>1</td>
</tr>
<tr>
<td>Core Group</td>
<td>7</td>
</tr>
<tr>
<td>Ad Hoc Committee</td>
<td>8</td>
</tr>
<tr>
<td>Farmers Group</td>
<td>25</td>
</tr>
<tr>
<td>Multi-sectoral Representatives</td>
<td>45</td>
</tr>
<tr>
<td>Barangay Representatives</td>
<td>70</td>
</tr>
<tr>
<td><strong>PEOPLE AT LARGE = RANDOM SAMPLES</strong></td>
<td><strong>359</strong></td>
</tr>
</tbody>
</table>

Figure 5.2. The pyramid of dialogic groupings in the research process.

**Core Group**

As discussed earlier, there were seven core group members who have collaborated with me in the whole research process.

**Ad Hoc Committee**

This committee composed of 8 members was formed by the farmers group to work closely with the core group. It was meant to integrate farmers’ sentiments particularly in defining desired change. The participation of this committee came about in later stage of the research (Chapter 7).

**Farmers Group**

The farmers group was emergent that came about later in our search for feasible and desirable changes. Despite a rapid turn-over of participants in various research
activities, there emerged a regular group of farmers who participated in our dialogues and workshops particularly in the defining and implementing of change. Their participation is discussed in Chapter 7.

**Multi-sectoral Representatives**

The multi-sectoral representation was composed of about 45 persons from different sectors of the community. The selection of prospective representatives was worked out by the core group. Similar criteria to those used in choosing the core group were used as a guide, except that the multi-sectoral representatives did not have to commit as much time to the research project as the core members did. The multi-sectoral representatives were participants of the workshops and dialogues which were meant to reflect the community perspective.

**Barangay Representatives**

The barangay representatives came from among the random samples (which will be discussed in the next section). An invitation to attend the barangay dialogues were given to all of them. Those who responded to the invitation and came for the dialogues were arbitrarily considered barangay representatives whose formation is more spontaneous than *a priori* selection.

These dialogues were aimed at involving a greater number of people than the multi-sectoral workshops could allow in order that there would be a greater number of people sharing a common consciousness and more people to share insights and visions. It was also hoped that greater trust and cooperation would be achieved in this manner.

These dialogues were organized in barangays from the three geographical areas: coastal, upland, and lowland.
People at Large Selected by Random Sampling

In the continuing effort to involve as many people as possible in the dialogue about community development, some subjects were selected through stratified random sampling. To calculate for the sample size, I used the formula of Pagoso and Montana (1985) as follows:

\[
    n = \frac{N}{1+Ne^2}.
\]

where,
- \( n \) = the number of samples
- \( N \) = the total population
- \( e \) = the level of tolerance. In this case we used 5%.

From this formula I calculated a need for a total of 359 respondents. This number was distributed proportional to the number of households in the barangays. The same sample respondents were involved in the opinionaire and in the informal interview. The same sample size (i.e., 359) but different set of respondents were used in the Farming Systems Analysis. The participants of the dialogues with the barangays were invited from among these sample respondents.

As it happened, there were other participants who joined in the various activities. These people were not from the “sample”, but heard of our workshops and dialogues from friends who in turn invited them to join. So while we started with some “random samples” to invite participation in our series of workshops and dialogues, the emergence of an “action-researching community” was more spontaneous. There was a high degree of turn-over from one activity to another, but there did emerge a group of regular participants who sustained the pursuit of the “desirable and feasible changes” as a common vision for our community.
PART 2 - UNDERSTANDING THE SITUATION OF THE COMMUNITY

The underlying motivation for understanding the situation of our community was to be able to transform it in a way that was collectively meaningful to its people. As Borda (1990) put it, “investigating reality in order to transform it”.

The Initial Picture

The Initial Picture was largely my personal interpretation of what the situation of San Fernando looked like. This interpretation was based upon the municipal socio-economic profile of San Fernando and my personal observations. Some of these data has been presented in Chapter 4. I cannot however, deny that the interpretation of even those “hard facts” and “figures” was coloured by my personal experiences and assumptions in life. So when I illustrated in Figure 2.4 (Chapter 2), my initial perception about the situation in our community, I knew that I needed to share it with the people in our community. For as Freire (1990) put it, “concrete reality is something more than isolated facts. ... but also includes the ways in which the people involved perceive them.” Moreover, it was to ensure as full an understanding of reality as possible in order to transform it (Borda, 1990).

RICH PICTURING

To develop the “Rich Picture” about the situation of our community, the core group conducted the following activities:

1) Multi-sectoral Workshop 1 on sharing of awareness about the situation of our community. This was conducted with the following aims:
   • To introduce this research especially its participative nature and to encourage people’s participation;
• To look at the situation of the community from various perspectives of the multi-sectoral group;

• To draw out the key issues about our community.

2) Opinionnaire about attitudes towards community development. This was done to build a picture of the psycho-social environment of this research, that is to understand how the people think or feel about community development, particularly on the issue of participation and collaboration.

3) Informal Interview on farming systems and views of community development. The points on farming systems were used to construct a more detailed Farming Systems Analysis which was in turn used to describe the farming systems of the community. The points on community development were used to unfold and bring to the fore the people’s meaning of community development. This was to allow various perspectives to emerge.

4) Multi-sectoral Workshop 2 on “Believing in our Capacity To Change”. This was a response to some findings from the informal interview, particularly that of resignation. This workshop was aimed at inspiring a realisation that reality changes and we were capable of directing the course of change.

5) Dialogues with the Barangays. These dialogues with the barangays conducted on the basis of geographical areas (coastal and upland) were designed to involve more people than the workshops could allow. This was to ensure a participation from a greater number of people.

6) Farming Systems Analysis. This was done with dual purposes:

• To build a picture of the farming systems of the community, a part of the whole picture; and

• To explore some areas for possible (reductionist) research particularly on animal nutrition and/or crop-livestock integration.
Rich Picturing Activity 1- First Multisectoral Workshop:

Orientation and Sharing of Awareness About The Situation

This workshop was aimed at drawing out the key issues about the situation of our community. I also wanted to introduce the research project and open to the people their possible participation in the research.

This workshop was participated in by representatives of the following sectors: the local government, national service agencies, pastoral council, youth organizations, cooperative members, barangay council and private individuals who were identified by the core group.

Invitations were issued by letter which were handed out personally by members of the core group. One important thing that resulted from this personal approach was the friendly chat that usually occurred with the prospective participants and his or her family. Initially the letters of invitation were under the signature of the Mayor of the Municipality, which in itself was a gesture of respect to the local authority. In addition, this made the local government aware of our research project.

This workshop and the other workshops and dialogues usually took place over a whole day, but with a structure that was not too taxing of the participants. A socialising activity was a regular feature of our workshops and dialogues. We also had lunch break and coffee break as a group which provided more occasions for personal encounters.

Another common feature of our workshops and dialogues was the discussion in the small groups, which varied in size from 5 -10 persons each group. As mentioned before, each small group was facilitated by a core group member. This allowed for a greater participation of all. A sharing from the small group discussion to the large group, meaning the whole assembly, facilitated a common understanding.
While being reflexive and open to inspirations of the "present" moment, the core group usually divided the task of facilitation beforehand and flowed with the process smoothly.

In this multi-sectoral workshop, there were three topics that elicited discussions and sharing of our own perceptions: (1) the research methodology and its implicit concept of "local initiatives"; (2) the data from the municipal socio-economic profile; and (3) the photolanguage.

Reflecting About The Research and Its Methodology

After the introduction of the participants in this multi-sectoral workshop, I started the session by presenting my research and how it would become 'our' research. I have explained that its basic direction was community development and being conducted for a PhD thesis. To underscore the importance of participation I wrote on the board the definition of an action research (by Altrichter et al., 1990) from which I identified its essential characteristics:

- That it is a democratic research;
- Involving people concerned by the problem;
- Through collaborative efforts improve the situation; and
- Change is made according to shared aspirations.

This definition triggered some questions that led to a discussion of its methodology and its potential for contributing to the improvement of our community through collaboration. The participants expressed an appreciation to this research which they considered 'especial' type for being participative.
The enthusiasm of the participants was inspiring. They felt the importance of their being a part of a research project that was hoped to contribute to the improvement of the situation in our community. It was flattering when some of the participants said: “We are indeed, very fortunate, to have one from among us in the community, who care enough to do her research in our very own town which is hoped to be beneficial for us.” At the same time, it was a challenge to put things in perspective so that, at the very outset, we all shared both the honour and responsibilities of whatever we achieved through the research process. As an ethical safeguard for a possible unfulfillable expectation, I had to underscore that what we would achieve depended largely on each one of us.

I explained at the very outset that I was not working with any government or non-government organization or a sponsored development program. This was a subtle, but clear expression that there was no fund or institutional back-up to this research project. I also explained that my role (which was shared with the core group members) as a researcher would be as a facilitator of the research process.

The participants expressed their delight and pledged support for being involved in this research process. This pledge of support, however, was to be challenged later by a more challenging praxis of “self-reliance”, “self-help” and “local initiatives”. Instead of supporting somebody to lead them, the leadership had come from among themselves.

By the spontaneity of comments and responses to the question that had emerged in the workshop, (Whose responsibility is the improvement of our community?), it was clear that it was a wide and common expectation that improvement of our community was seen as the government’s responsibility. The idea of a bureaucratic approach or top-down approach to development pervaded this group’s way of thinking.

Writing out their ideas on a board in front of them as shown below (Figure 5.3) and my questioning, “Who else is responsible?” encouraged them to pronounce, after
some time of silence and a bit of hesitation that they were also responsible for the improvement of their own life, their families and the community.

![Diagram of Who are responsible for community development?](image)

Figure 5.3. Those responsible for community development (as perceived by the participants of the Orientation Workshop)

This first expression of faith in our capacity to transform our life and our community continued throughout our praxis - of reflection and action.

Looking at the Socio-economic and Physical Profile of San Fernando

Presenting the socio-economic and physical profile of San Fernando aimed at eliciting perceptions from the participants about our situation, “Do other people in our community perceive it the way I do?” The statistics which I presented in either table forms or in figures included data on human resources - the people, their education, health and economic status; agricultural production and other economic
activities of the community; and infrastructure development and social services of the government.

This data provoked a discussion which unfolded some perceptions of the participants about the situation of our community which can be summarized as follows:

- The dwindling population of carabaos (water buffaloes) was partly blamed on the government considering two points: (1) the promotion of mechanised farming and (2) lack of implementation of policies protecting the carabao population. There was a mild expose of possible connivance of local governments authorities with illegal practice of marketing animals.

- Speaking from government’s perspective, the municipal mayor spoke about its various development programs. He contended that these development programs failed because of what he called ‘wrong attitudes’ of the people involved. With this he forwarded the need for value transformation believing that there can be no success in community development without first reforming the people.

- The farmers expressed sad sentiments over the undernourishment of children. They considered this fact ironic in a food-producing community.

- Some participants expressed surprise at some facts such as massive poverty, lack of education, widespread unemployment and undernutrition of children. They expressed their pleasure at not being isolated in their poverty.

In small group workshops there was a sharing of impressions about our community which was summarized by the core group afterwards as shown (Figure 5.4).
Figure 5.4. Insights about the situation of our community
The Photolanguage Process

The protolanguage process was done to bring about personal reflection and awareness of some social issues and to assess the "centres of interest" of the group, or bring out their "generative themes". Photolanguage challenges the imagination, reaches into the realm of the spirit and touches a deeper level of consciousness. The photographs facilitate a concrete expression of feelings memories, dreams and ideas. They also help a group to avoid a wordy abstract discussions which often serve only to evade, and not confront specific issues (Cooney and Burton, 1986).

Sometime in the 1980s, during my involvement in the San Fernando Catholic Youth League and some Christian formation seminars for the youth, I experienced the use of photolanguage. I have learned how effective it was in bringing out deep reflection about some themes of the encounter. Sometime, too, in the mid-1980s in my mission work with the poor of the slum areas of Naga City in the Philippines, I also realized that photolanguage could be used effectively in values clarification and social issues awareness (or conscientization, after Freire, 1972).

During this multi-sectoral workshops, our photolanguage process made use of the collection of photographs that were reflective of the social and cultural idiom of the Filipino people. From about a hundred pictures, we displayed about 60 of them in a room separate from where we were having the sessions. They were arranged in such a way that the participants could move about and look at the pictures, and then pick one or two that attracted them. After about 10 minutes, they reflected on the meaning the selected photographs had for them.

Participants then shared their thoughts about the photolanguage in small group discussions and finally in the large group. There was lively sharing and discussion of various socio-political and economic issues of our community.
Then I facilitated the identification of the main themes by asking the participants, "What are the main ideas expressed in our sharing of thoughts through the photolanguage?" All ideas were written then similar ideas were clustered together until we were able to identify the following key themes:

1) *The need for an integrative approach to development (of agriculture).* This idea arose from an experience of problems caused by an isolated approach to problem solving. For example, for the problem of the "golden snail" infestation of the rice farm, extension workers recommended the use of farm chemicals. These chemicals however, caused damage to the hoofs of the carabaos besides itchiness in the farmers' feet if not damage to their toes. Moreover, the "golden snail" used to be edible and many people picked them as protein source. With the chemical spray they quit picking them. This led to a greater multiplication of the snails, making the problem worse than before the use of chemicals.

2) *The need for government and church intervention and support.* The magnitude of the problems of the community, seemed too big for "patches" of effort from private individuals or groups.

3) *A general idea for cooperative endeavour.* As one Barangay Captain put it, "Like the midribs in a broom, if they are tied together, it can clean the room." They felt by working together they could begin to tackle the community problems.

4) *The need for social transformation.* This refers to the transformation of values and attitudes of the people toward development programs. They said that many of the development programs of the government have failed because of the people's attitude that they think of what they could get from the programs and less of what they could share with others. They felt this attitude must change giving way to an honest and sincere involvement.

5) *The need for government reforms.* There was an expressed need that the government must wipe out corruption and improve its service delivery system to the people.
6) Social justice and social equity. This theme was expressed through an idea of fair distribution not only of resources, but also of opportunities. They think that the poor should at least have a decent living.

7) Peace and order has to be restored. No amount of prosperity will be enjoyable if there is no peace in our land.

Rich Picturing Activity 2:

The Opinionaire

The core group believed that it was necessary to sense the psycho-social environment of our research, that is, to understand how the people think or feel about community development, particularly on the issues of participation and collaboration. We had articulated in the core group that if the people see their life in the confines of family concerns, then such a collaborative inquiry has to climb “uphill” in the facilitation of a group process. We assumed that if the people have some “concerns” for community development, then facilitation of an action research would have a good footing, at least to start with.

So we decided to develop an opinionaire to “measure” the following parameters:

a) awareness about the situation in the community;
b) perception about community development;
c) aspirations for community improvement; and
d) its related constraints;
e) attitudes towards collaborative effort; and
f) sense of participation in cooperative endeavours.

We believed that the attitude of the people of the community would have a bearing on the sustainability of a group process. Aquino (1992) described an opinionaire, as a measure of attitude or belief of an individual.
Since it is difficult, if not impossible, to describe and measure attitude, researchers must depend upon what people say are their beliefs and feelings. This is the area of opinion. Through the use of questions, or by getting people’s expressed reactions to statements, a sample of their opinion is obtained (Aquino, 1992:106).

Developing the Opinionaire

Considering the above mentioned parameters, the core group developed the opinionaire. Each one of us took one parameter as the theme to develop for instrumentation. We did this by formulating statements that could elicit responses reflective of the opinion relative to the said themes.

Theme A was tackled by core member A, theme B by core member B and so on ... Then each one presented his/her instrumentation to the core group for enrichment. So while a core member has worked on one theme he/she has had the chance to reflect on all themes. Likewise all themes have passed through the evaluative reflection of each core member. This is a kind of interactive research cycling (Heron, 1988), where a balance is sought between some individual research cycling and some aspects of collective research cycling to enhance validity of co-operative inquiry.

The sets of statements were collected and structured into an opinionaire which was written in Bicol and an English translation is shown in Appendix Table 5.1. Using a 5 point scale based on the Likert method (Aquino, 1992), a scale value was assigned to each of the five responses to the statements.
<table>
<thead>
<tr>
<th>RESPONSES</th>
<th>SCALE VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>4</td>
</tr>
<tr>
<td>Undecided</td>
<td>3</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>1</td>
</tr>
</tbody>
</table>

Validation of the Opinionaire

The core group conducted a dry-run or validation of the opinionaire with the multi-sectoral representatives. The instrumentation was evaluated on its clarity and conciseness of the statements, comprehensiveness and relevance of the content and the time required to do the opinionaire.

Based on these criteria (Appendix Table 5.2.1) the results of the evaluation (Appendix Table 5.2.2) indicated that the instrumentation was very good and the time required to accomplish it was judged to be appropriate. Minor revisions were also suggested and carried out before the opinionaire before was administered to the respondents.

How We Administered The Opinionaire

The core group went to all the barangays. We did the informal interview and administered the opinionaire in pairs. After establishing a rapport, we explained the opinionaire. There were two ways the respondents could complete it:

(1) reading the statements himself or herself and underscoring the responses on the printed opinionaire; or
(2) the core group member reading it and the respondent expressing their responses.

Almost all respondents chose the latter. We noted their degree of agreement or disagreement to the statements and their remarks.

Making Sense of the Results

Our interpretation of the collected data (Appendix Table 5.3 and 5.4) follows:

On awareness of the situation in the community (Appendix Table 5.4.1)

The people were generally aware of the situation in the community in terms of its social, economic and political climate. They were especially aware of the government’s ineffective strategy of helping the farmers, the massive poverty and unemployment.

They recognized that there were people in the community who were resigned to their situation or not highly motivated to change it. Despite this, they were still aware of and believed in their personal capacity to improve their life’s situation, but thought they probably needed support from the government and active intervention from concerned groups.

On Perception about community development (Appendix Table 5.4.2)

The people see their family and community situation as the fruits both of their efforts and negligence as well. They observed that perhaps there were many poor because they didn’t care enough for others and the community. Some also noted that some pretexts of development were initiated by selfish motivations. They believed that development programs, must be based on the real situation and the needs of the people and that consultation or dialogue with the people is essential for conceiving and implementing development programs. They believed trust is a key factor in
improving the situation in the community and their investment of their effort and cooperation is proportional to the degree of trust.

*On Aspirations (Appendix Table 5.4.3)*

Believing in the “power of thought” and the “power of dream” themselves, the researchers tried to measure what dreams the people had in their minds in a general sense and their enthusiasm for improving the situation in the community.

While experiencing difficulties in life and despite the problematic situation of the community they still believed in the limitless possibilities that lie beyond what is now present. They saw the possibility that families would improve their situation along with that of the whole community through responsive livelihood programs and cooperative development. They also expressed willingness to cooperate for any endeavour that would foster community development.

*Fears and Constraints (Appendix Table 5.4.4)*

The measure of fears and perceived constraints was based on the assumption that there were personal perceptions that could constrain an effort for development. There was an indication of a belief in “destiny”, that they were destined to be poor. That there was nothing they could do to change their situation. On the other hand, there were those who disagreed with this. They believed in the reality of change. As many folks in the community would say “*pag may hirap may ginhawa,*” which means “if there is sacrifice there is progress”.

Moreover, the statements were indicating a very personal perception. Viewed in the context of people who believe in the power of united effort, it is quite understandable that they are not confident to say that as individuals they can overcome their present
difficulties and move to an improved situation. The sense of powerlessness over their situation is felt more when they view it apart from working together as a community. The fear might lie in the thought of working alone. They are enthusiastic to join community organizations and activities especially those with a clear direction towards community development.

*Attitudes on Collaboration (Appendix Table 5.4.5)*

The people had a “positive attitude” towards community development. While they were concerned with their own families, they also feel concerned for others in the community. They agreed that even “the poor” could contribute something for community development. Helping others was a joy for them. They had a good sense of responsibility and a strong desire to cooperate for the good of the community. They liked mutual sharing and interdependence.

*On Participation (Appendix Table 5.4.6)*

Being aware of the problematic situation in the community, the respondents of the opinionaire expressed the need to be united and help one another. They strongly agreed that we are all brothers and sisters all needed to work together for the good of the whole.

Apparently, they felt powerless due to being poor and less educated and they believed that the present situation could change, but only by united participation. They believed that nothing was impossible when people were united in thoughts and deeds ... in reflection and action.

They also believed that only by active participation in community affairs could they express the sentiments of the poor and the powerless. “Working alone can not achieve
much," one participant said. With this outlook, they expressed willingness to participate in whatever way they could for community development. Over and over again, the respondents expressed a willingness and desire to work together to help the community.

**Rich Picturing Activity 3: Informal Interview**

The informal interview was conducted to build a picture about the meaning of community development for members of the community. The points on farming systems was used to prepare a structured questionnaire for Farming Systems Analysis (which will be discussed later).

We formulated some points for the interview (Appendix Table 5.5.1 and 5.5.2) for the core group members who did the interview. The interviewing took place keeping in mind the essence of the question in each item. This allowed us to proceed with the inquiry preserving the spontaneous and casual nature of the conversation.

The data was summarized by calculating the frequency of mention of each item and its corresponding percentage relative to the total responses (Appendix Table 5.6.1-5.6.6). The summary of findings is discussed below.

The Meaning of Community Development (Appendix Table 5.6.1)

To the people, community development meant the following criteria enumerated according to importance:

1. *High Household Income*. Considering the present situation of the community where about 85% of the number of households have an income below the poverty line, it could be expected that they would only understand the meaning of community development in the light of improving their own family situation. Apparently, any development program that fails to address this need for survival is something unreal and without meaning for the people.
When a day’s wage is barely enough for the day’s need of the family development becomes purely rhetorical if it does not help them become liberated in some degree from the bondage of poverty.

(2) Unity and Cooperation of the People. This criteria for community development came from a feeling of need for some external help. Alone, they seem powerless to overcome their own problematic situation.

(3) Good Roads, Bridges and Electricity. The clamour for good roads and bridges was akin to the improvement of agricultural production and improved rural commerce. At present, the whole community of San Fernando while having a total land area of 8,700 hectares has only 10.5 kilometres of concrete roads and some 89 kilometres of earth roads which often become impassable during the rainy season. This short length of road networks causes difficulty in the mobility of people and transport of their farm produce. This was a de-motivating factor for farmers to increase agricultural productivity.

(4) Good Education. For them, community development also meant good education. They would even sacrifice the quality of their food, clothing and shelter to save some money for education of their children. They wanted them to at least experience a high school education.

(5) Good Family and Social Relations. They highly valued good family and social relations and any development program that does not consider this violates the very essence of their life and its meaning

(6) Satisfaction of Basic Needs. The criterion of satisfaction of basic needs comes in a cluster with other economic parameters like employment opportunities, high agricultural production, good roads and bridges and improved commerce.

(7) Peace and Order. As has been experienced in our community, a disturbed peace and order situation also disturbed the agricultural activities of the people.
(8) *Good Relationship with God.* Good relationship with God was also mentioned as one of the criteria for community development by a couple of respondents. The extent of how faith influences their view on community development is not well indicated in this data (Appendix Table 5.6.1). It was through unguided conversations that they indicated how important their faith was in the face of their difficulties in life.

**Appraisal of the Community Situation (Appendix Table 5.6.2)**

Majority of the interviewees saw that San Fernando was fairly developed. This was very interesting to note, for while the people were aware of the massive poverty in the community, they saw the community as progressive. The majority was not content with their family situation because of poverty as shown in Appendix Table 5.6.5. It seemed that they had a different perspective when looking at the situation of the community from that of their own families. They categorised their families as economically depressed, but the whole community as progressive while it was composed of poor families. This is a paradox. They seemed to view their situation divorced from the whole situation of the community.

**Perceived Factors Contributing To Community Development (Appendix Table 5.6.3)**

Industriousness and determination together with motivation, unity and cooperation could be considered as factors contributing to community development that are within the hands of the people. Naming them as factors contributing to community development by about 60% of the respondents may indicate that they perceive community development as a responsibility of the people. It was also indicated that they believe that government leadership is important for community development.

**Perceived Constraints To Community Development (Appendix Table 5.6.4)**
The most frequently mentioned constraints to development are: (1) limited job opportunities; (2) natural calamities; (3) lack of government support; (4) imbalance of prices of farm inputs and outputs; and (5) "bad luck".

Insufficient income from farming was compounded by a dearth of other job opportunities. For many farmers there is nothing to supplement the farm income and to offset farm losses due to natural calamities. They believed that if agricultural production could be supported and improved, it would boost the economic and social development of the community. But the people perceived that there was a lack of government support for agricultural production.

Both farmers and non-farmers mentioned of the high prices of farm inputs and the low prices of farm outputs as development constraints. They felt they had no effective government protection from unstable prices of inputs and outputs. This was felt mostly by rice farmers and coconut growers. At planting time inputs are too expensive, but at harvest time, farm produce is too cheap. This causes the rice farmers to feel they are not supported, much less protected, by the government. This research, happened to be the harvest time of rice and its price was dramatically reduced. The rice farmers in the province staged a demonstration against the National Food Authority expressing their sentiments about not fairly enjoying the fruits of their labours. The instability of prices of farm products is blamed on the monopoly of rice industry by Chinese businessmen that even the government can do nothing about.

After trying their best and still failing to improve their situation they would say, "That's it - luck" or "What can we do, that's our fate. Even if we work from sunrise to sunset or even until dark there's nothing we can do, but just have a fill of our stomach at least for the day."

The people of the coastal barangays saw abuse of resources as one constraint to community development. There, despite prohibition of dynamite fishing it still happens.
Insurgency and its impact to community development was quite a sensitive issue. The people would not freely discuss it. However, a considerable percentage of the people in the community recognized and said that insurgency has caused a setback in the community development.

The mention of a faulty attitude of the people as a constraint to community development came from people who were richer than the majority. They were the middle and upper class of the community. From their perspective, many people are poor because of their faulty attitude. They said, “Look at them, after harvest time, they just go for leisure. They drink, they gamble or just stay idle. When the government supports them with loans, they do not pay them back.”

But the poor people knew they had worked hard and would find an explanation for their poverty such as being born to poor parents, apathy of government to the needs of the poor, too much politics and corruption in the government.

These development constraints can be categorised as either: (1) factors that directly concern the people themselves or (2) factors that concern the government. Again, it is interesting to note that the people predominantly perceived that the constraints to development were not in their hands. The constraints that are perceived as not in their hands and their corresponding percentage frequency of mention are (Appendix Table 5.6.4):

- limited job opportunities 31.5%
- insurgency 3.6%
- imbalance of prices 11.8%
- lack of government support 12.5%
- too much politics 2.6%
- corrupt officials 1.2%
- lack of market outlets 0.7%
- climatic factors 15.1%

79.0% (of total frequency of mention of development constraints)
This figure, 79%, indicates the magnitude of constraints that are not in the power of the people to control. We can understand how powerless they feel over changing the situation in the community especially when they consider themselves as individuals and not as one community of people.

The Dreams for Community Development

Indeed, the people also have unspoken dreams for the community. Perhaps, they have many dreams, but those dreams which were spontaneously mentioned could be assumed to be the important ones for them. The dreams referred to by the participants in a descending order of frequency are as follows (see also Appendix Table 5.6.6):

- To have roads connecting farms to markets, electricity (19.0 %)
- To improve the life situation of the people (15.7 %)
- To have high household income (13.3 %)
- To increase agricultural productivity (12.8 %)
- To have good education (12.0 %)
- To be able to satisfy at least the basic needs of food, clothing and shelter (8.9 %)
- Cooperative development (8.1 %)
- Good relations among the people in the community (2.0 %)
- Government financial assistance (1.8 %)
- Peace and order, and (1.7 %)
- Employment for all (1.5 %)
- Other responses: (2.8 %)

Other responses include: lessen gambling, establish industries, improve schools, have capital, have postharvest facilities particularly a grain house, create livelihood projects and have a church.
Even at a glance, one could surmise that the essence of their dream was the improvement of the life situation of the people in the community. For them this means sufficient food, clothing, shelter, good education, good relations of people in the community, and peace and order. They seemed to indicate that the improvement could be achieved through employment opportunities, increased agricultural productivity and consequently increased household income. They think these could be achieved through government financial assistance for livelihood projects and cooperative development. The summary of these dreams is illustrated in Figure 5.5.

Figure 5.5. A summary of the dreams of our people as expressed by the respondents to the informal interview.
Reflection on Our Interview Experience

After the informal interview, the core group shared our personal experiences of the research activities. It was an engaging experience for each of us to learn about the situation by listening to the life stories of the people. One of us experienced crying when overwhelmed with the respondent’s tone of despair about life. Having had the chance to talk with the people in a very personal encounter, where we also had the chance to walk with them, eat with them, and spend a night with them in the village, we all strongly identified with their plight.

After this powerful and moving experience, we shared together and collated our common observations and impressions. These follow:

- We observed that the people were aware of their own situation and that of the community. They seem to view their situations as divorced from the whole. A significant number of the respondents still believe that ‘fate’ makes their life.
- They were accustomed to their situation and have learned to ‘adapt’ to it. Whether it changes or not appeared to not really matter much to them;
- We were sad to note their tone of despair about life and their feeling of powerlessness to make any significant change;
- Their life’s preoccupation was more of survival of how to live day by day. They worried what to have for every meal, but trusting in the providence of the Good Lord, that before the sun sets, they would have something to eat. A plate of rice and a pinch of salt was a regular meal for many families especially in the rural barangays;
- They believed that development should consider improving the livelihood of the people.
We had identified with the poor so much that our feeling of ‘unease’ about the situation was keen. We questioned ourselves if we were dreaming too much for them. We decided we were not.

With our passion to share our faith and conviction that their life could be better, we continued dialoguing with our people in that search for a common vision, exploring possibilities for change through a Workshop on Change. We observed that people were more enthusiastic when in groups (as in the first workshop) than individually. We also observed that group dynamics encouraged greater enthusiasm. As Folch-Lyon and Trost (1981) similarly observed:

The group situation can encourage participants to disclose behaviour and attitudes that they may not consciously reveal in an individual interview situation. This occurs because the participants feel more comfortable and secure in the company of people who share similar opinions, attitudes and behaviour or simply because, they become carried away by the discussions. . . . The contribution of one participant spurs others to offer additional information (Folch-Lyon and Trost, 1981:445).

**Rich Picturing Activity 4 - Second Multi-sectoral Workshop 2:**

**‘Believing in Our Capacity For Change’**

This second workshop was conducted with the following aims:

a) To inspire a deeper realisation that reality changes and we are capable of directing the course of change;

b) To unfold the people’s aspirations not as individuals, but as one people in the community;

c) To create an opportunity for exploring the “limitless possibilities”.

Three main activities triggered discussions from which we can draw some insights:
1) the review of the orientation workshop; 2) the results of the opinionaire gathered from its validation by the participants of the first workshop; and 3) the workshop on change.

The Review of the Orientation Workshop

The situation of San Fernando was viewed through the ‘lenses’ of the multi-sectoral representatives during the Orientation Workshop (Activity 1). To link the said activity with this on ‘Change’, we facilitated a review of the significance of the former.

The participants acknowledged their increased awareness about the community situation. The photolanguage was noted to have sharpened their perceptions about social issues such as massive poverty, disparity between the rich and the poor, widespread unemployment and the preponderance of out-of-school youths.

They also expressed their realisation that their personal experience of poverty, inadequacies, and struggles in life finds an echo in the life of San Fernando as a community. One participant expressed despair thinking that it was his grievous incapacity to support his family that made them poor. Understanding that it is a wide experience comforted him somehow. It was not so much that there are others who are also poor, as his realisation that it is not his entire responsibility. Rather, it is a social inequity. This indicates a growing awareness that their personal experience (e.g., poverty) is a collective experience.

These realisations made them feel the overwhelming problems of the community such that they thought they needed cooperative efforts to change the situation. They believed that they should not only think, but act.
Reaction to the Results of The Opinionaire

To stir some insights about the results of the opinionaire, I started by sharing my interpretations of it. I shared that it indicated a strong sense of participation among our people and that they believed participation was essential to community development. This interpretation elicited comments about participation and cooperation.

They expressed their positive attitude to any development effort and that they are easily enthused to work together. However, their experiences of formal cooperative organizations failing due to corruption and mismanagement, created doubts about cooperative endeavours. However, despite doubts and hesitations expressed by some participants, the enthusiasm of others was contagious to the whole group. They acknowledged that cooperativism is still alive in the hearts of our people and that cooperatives can be successful and contribute to community development.

The workshop on the reality of change

To help the people realise that reality changes, a workshop was facilitated by my supervisor, Roger Packham and myself. We guided the participants to build a story of San Fernando: its past and its future. The story of the past was constructed by noting down the situation of San Fernando or some events that had happened in the past fifteen years. Initially, they worked as individuals then shared their stories with the large group. Their stories were also written on paper and posted on the walls of the session hall to allow the participants a greater “feel” of changes in the past.

Quite notable in “the story of the past” was its sad tone. Many of the stories shared were accounts of natural and social disasters: the dark history of dictatorship, the insurgency and terrible killings of the civilians and bombings of infrastructures, the typhoons and floods that not only damaged crops, but caused some mishaps in the
lives of some people, and the earthquake and eruption of Mt. Pinatubo (which while far away it caused tension among the people of San Fernando).

There were some accounts of happy events such as when an agricultural college in our province launched the Agricultural Extension Outreach Program that has helped the poor in their livelihood projects. There was also a happy recollection of a remarkably high production of rice in one field trial done in Barangay Beberon. This trial was supervised by the Department of Agriculture.

During the lunchbreak discussions continued and I heard spontaneous sharing of insights among the participants. They realised how time can just go by without notice and often just flow with the events. A question was raised among themselves in this spontaneous discussion, “Is it possible for us to change the flow of events of our history?”

In the next part of the workshop I proposed we write our vision and suggest plans to achieve it. The workshop proceeded in small groups of between 7 to 10 members. In small groups, facilitated by a member of the core group, they came up with their visions and plans for the community of San Fernando. Then in the large assembly, each group reported its visions and plans (Appendix Table 5.7). Central in their visions was the improvement of their quality of life.

*Rich Picturing Activity 5 - Dialogues With The Barangays*

These dialogues were conducted to involve more people than the multi-sectoral workshops could allow so there would be a greater number of people believing in our capacity for change. These were organized by agro-geographical areas as coastal, upland, and lowland barangays. But in as much as the multi-sectoral workshops were held in the lowland (particularly in poblacion) and most of its participants come from
the lowland, it was decided that it was not necessary to hold a dialogue with the lowland barangays.

Dialogue with the Coastal Barangays

We requested that the participants express their expectations from the dialogues as they introduced themselves. They said that they were happy to be involved, they appreciated that they had an occasion to gather together and be able to exchange views relevant to their life situation. They felt the dialogue was a gift from God where they had an opportunity to know and understand their problems and explore possible solutions. They expressed an expectation of some form of financial assistance.

Dialogue with Coastal Barangays

Workshop 1: Building The Story of The Past

In their story of their past, there was a predominant theme of extreme poverty due to typhoons and drought. All the coastal barangays had a sad experience of typhoon Sisang in 1986 that destroyed their coconuts. Recovery from coconut destruction takes a much longer time than for rice. It was also in the coastal barangays that the impact of the insurgency was most keenly felt. They suffered not only from the inconvenience of being relocated to barangay centers, but also due to fear. Some people the participants knew personally were killed during the height of the insurgency. They were not sure whether the killings were done by the insurgents or the military and they were afraid to seek justice to avoid negative repercussions. They also mentioned in their stories that the rebels caused much of their suffering during the past decade. They stopped planting secondary crops because they were afraid to
go to the hills. They only maintained the coconuts plantation which when destroyed by typhoons, placed them in utter poverty.

Another sad story was that of the cholera epidemic of the late 1980s which affected the four coastal barangays. The suffering from the epidemic was complicated by the absence of medical assistance from the government, the financial problems of the families and the absence of connecting roads between the barangays and the town center. They also incurred personal loans for medication.

Fortunately though, and they feel grateful about this was the experience of being helped by the government. One coastal barangay had availed itself of a loan grant of half a million pesos for a fishing vessel and equipment from the *Kilusang Kabuhayan at Kaunlaran* (KKK), a livelihood program of the government. Unfortunately, the boat was destroyed by typhoon Sisang. They were also helped both by the government through the Department of Trade and Industry and by the Church through a diocesan program, to organize a fishing cooperative, through which they were able to get some loans for their fishing livelihood. A part of their happy memories was the coming of catechists to their barangays and the housing project from the diocese.

*Dialogue with Coastal Barangays*

*Workshop 2: Building The Story of The Future*

This session on Building the Story of the Future was facilitated by Nick. He started by saying, “We were able to write the ‘story of the past’ of our barangay’. Maybe, now we can also write another story, a ‘story of its future’. The workshop proceeded in small groups by barangays. The goals and plans for each barangay is shown in Appendix Table 5.8.

The main goals of the people as a community were economic upliftment, quality education and peace and order. Actually, the first two aspects: economic upliftment
and good education, are like two sides of a coin. The farmers want an increased household income so they can afford to educate their children which in turn assures them of a good living. For them, “education is wealth”.

The vision of a community where there is peace and order was very important for the coastal barangays. They have experienced their farm work being disturbed and interrupted and the fear of killing and fear of gunfire between groups. For them, there was nothing any better than wishing for a peaceful community.

For most of the plans, the means to achieve the goals were things that could be wished for by the people, but could only be done by the government such as the construction of roads, rural electrification and establishment of schools. These recurred speaking eloquently of the inadequacies of public facilities which render the life of the people and struggles for economic upliftment difficult.

*Recapitulation and Making Sense of the Dialogue: Its Outcomes*

The participants mentioned the following outcomes of the dialogue:

- It served as a forum for discussing their concerns and some possible alternatives. As one participant said, “Our problems in the barangay are actually not Virgie’s problems. Neither is the fulfilment of our vision her responsibility. But truly I appreciate this occasion that we can discuss our concerns as a community and at least it has opened some options for how some of our goals can be fulfilled”.

- A dialogue developed between the Sangguniang Bayan and the barangay. Fortunately, Nick, a core group member spoke from his position in the Municipal Council about what he himself had done and could still do about lobbying for the construction of feeder roads and the implementation of the “Bantay Dagar”, a program protecting the subsistence fishermen.
• This inspired a sense of participation in some community activities in the barangays. As one participant said, “As for me this dialogue has quite a different impact. It inspired in me a desire to live not only for my family, but also for others - for our community.”

• It revitalised the sense for action for the participants. As one participant said, “I just wish our efforts should lead to some action. We already know our problems, we know what we can do. Things that the government can do, we have our ABC President or even the Barangay Council to lobby for us. But surely there are things that we can do by ourselves. Like our livelihood projects, we can do it by ourselves. But we need capital. What can we do about this?”

That was the third time, the issue about financial assistance came up during this dialogue. So this gave me a special occasion to invite them later to the multisectoral debate on feasible and desirable changes where we could explore some possibilities. The dialogue with the coastal barangays ended with their expressed enthusiasm and willingness to cooperate in the research process as they also appreciated their own learning from it. As an expression of appreciation to our efforts, the Lady Barangay Captain, Lilia Almilla rendered a song for us. As a response from the core group Nick also rendered a song. Then some participants escorted us to the shore and we sailed off home to the poblacion.

Dialogue with the Upland Barangays

The same procedures with the coastal barangays were followed in this dialogue with the upland barangays. At the outset, during the socialisation, the participants expressed their gratitude for such an occasion to exchange views with the other people in the community regarding their life situation and for exploring some ways of improving it.
Dialogue with Upland Barangays

Workshop 1: Building The Story of The Past

Participants of Upland Barangays shared a similar story with those of the Coastal Barangays particularly about typhoons and insurgency. However, in this story there were more accounts of happy experiences such as: the building of barangay chapel where they could celebrate mass during especial occasions; constructions of artesian wells, barangay halls, waterworks system, heat centers and barangay roads. The people realised that changes occur. If there were changes in the past, so too, there will be changes in the future. This realisation inspired us to move to the next workshop.

Dialogue with Upland Barangays

Workshop 2: Building The Story of The Future

As one people and as one community, they built their “Story of the future”, where they set their visions towards which they could move. Setting out their vision was done in small groups by barangays. Their goals and some suggested plans are shown in (Appendix Table 5.9). Their main goal was also similar with that of the coastal barangays, that is, economic upliftment and good education. Upland Barangays however, put a strong emphasis on strengthening the ‘bayanihan’ spirit (or a deep sense of solidarity and cooperation).

Recapitulation and Making Sense of the Dialogue: Its Outcomes

When asked about what the dialogue meant for them, it was interesting to note their acknowledgment of it as an especial occasion for the people of the area to gather and talk about their barangays. They expressed a feeling of elation at being able to discuss matters about their barangays. While they recognized the important role of the government in the fulfilment of their vision they thought that people should learn ‘collective self-reliance’.
One Story, One Dream, One People: A reflection on Workshops on Change (Activities 4 and 5)

The core group synthesised the visions and plans of our people (Figure 5.6). The core of their vision was the improvement of the life situation of the people. Related to this was the desire for improvement in agricultural productivity, social relations, education, good health and an increased household income.
Figure 5.6. A mind-map of the people’s visions and plans based from the workshop with them.
How to achieve these visions and goals still seemed to be largely dependent on the
government and its service agencies. The spontaneity of outlining plans that only the
government could do like putting up infrastructures, transport and communication
systems indicated the predominant way of thinking about community development
that it is the responsibility of the government.

The enthusiasm for participation in development endeavours is usually inspired when
government or non-government organizations spearhead the efforts. 'To cooperate
with' development efforts seemed to be their meaning of participation at that stage of
our research activity and level of our interactions.

One valuable outcome of our interactions through these workshops on change was the
sharing of stories. Building "one-story" gave a sense of being "one people" that
inspired "one-dream" for all.

Recurrent in the group discussion was the idea of "value re-orientation" or "value
formation". They said, "Unless we reform ourselves, we can not reform our society
and unless the government leaders reform their hearts, they can not really serve the
needs of the people." This seems to indicate a belief that community development
requires both personal and structural transformation.

**Rich Picturing Activity 6: Farming Systems Analysis**

Farming Systems Analysis (FSA) was used to describe the farming systems of the
community. This looked at the agricultural production and factors affecting it. This
also identified research priorities according to the farmers view points.

Based upon the results of the informal interview (Activity 3), I prepared a detailed
interview guide for a Farming Systems Analysis, integrating some concepts of
Agroecosystem Analysis (Conway, 1986). Then I presented it to the core group for
improvement. It consisted of questions on three major agricultural activities: rice
farming, coconut farming, and animal raising. The structured interview (Appendix Table 5.10) was designed in such a way that answers could be simply ticked on the interview schedule.

Validation and Administration of FSA

To validate the instrumentation for the Farming Systems Analysis, a “dry-run” was conducted. Some 20 copies of the interview guide were distributed to some teachers of the nearby agricultural college, some participants of the multi-sectoral workshop and staff of the Department of Agriculture, for its evaluation. After they themselves had completed the questionnaire, they were requested to evaluate it according to the criteria of clarity and appropriateness of the statements, conciseness and relevance of the content, and the time require to finish accomplishing it. The instrumentation was rated very good based on the said criteria (Appendix Table 5.11).

There were twenty youth volunteers who helped the core group in the administration of the questionnaire for the Farming Systems Analysis. While the structured interview could have been distributed to the respondents to read and do, we decided to do it in an interview style which was easier and created a more personal communication.

Collating the Data and Making Sense of FSA

The data on Farming Systems Analysis was tabulated by the core group. Then I tried to make sense of the Farming Systems Analysis in a way that I now present in the succeeding discussion. Believing that “man ... is suspended in webs of significance which he himself has spun” (Geertz, 1973), the analysis of it was not a search of law, but an interpretive one in search of meaning. The data was organized according to
four major themes: (1) Background Information on Agricultural Activities; (2) Rice Farming; (3) Animal Production; and (4) Coconut Farming.

Background Information:

(i) Agricultural Activities

Rice farming is the primary agricultural activity followed by coconut farming (Appendix Table 5.12.1). In both agricultural activities monocropping was widely practiced. Coconut farmers grow vegetables and rootcrops, but mainly for home consumption. Almost all farmers raise few animals in their backyard (Appendix 5.12.2).

Most farmers have been engaged in farming from their early twenties. Most of those with long years of experience in farming (Appendix Tables 5.12.4, 5.12.16, and 5.12.23) started by helping their father then continued on their own especially after getting married. Farming was generally an inherited trade.

(ii) Tenurial Status and Land Area

The data on tenural status and land area are shown in Appendix Tables 5.12.3, 5.12.11 and 5.12.24. In the community of San Fernando, 59% of farmers do not own the land they till. It is either tenanted, leased or mortgaged or yet in the process of land transfer. Landholdings were generally small from an average of 0.9 hectare for those not owned and 1.0 hectare for land that is owned.

The average landholdings of coconut farmers is 5 hectares per household. A farming family may hold a land they own or which they do not own which can be either mortgaged or in a term of share tenancy.
In the Philippines, we have a saying, "Born beside the carabao, lived beside the carabao and died beside the carabao." (Carabao is a water buffalo). This expression is not a disdain to raising carabaos, but rather a portrait of the life of a peasant. He owns nothing, but himself and his carabao. He has only his sweat to offer for an exchange of paid labor or for tilling the land he does not own. He borrows from his landlord the capital he needs. From the farm produce he pays him back for what he owes, the use of the land and the capital. This leaves him nothing more than what he needs for the family to survive. This keeps him in bondage to the soil.

The basic philosophy of land reform in the Philippines is to free the farmers from bondage to the soil. To keep him free from exploitation by the landlords, the farmers were given opportunities to own the land they till. This land reform has made the farmers more aware of land ownership with a new meaning, a renewed vision in life.

(iii) Family Participation in Farming Activities

Farming is primarily the responsibility of the father and the son in the family. (Appendix Tables 5.12.12 and 5.12.28.) With the culture of the community (as is generally true of the whole country) tough jobs on the farm are tasks for men. But of course, the mother and daughters are expected to do household chores and preparation of food for the farm workers. They also do some of the marketings of the produce and share in decision making.
On Rice Farming

Perception on the Use of Modern Varieties of Rice

Since there were many old folks who praised the traditional varieties, but adopted the modern varieties, we decided to explore the farmers’ perception about some characteristics of these two types of rice varieties.

Almost all (82% of) farmers now use high yielding varieties with the balance of 18% of them use traditional varieties. The latter are only in the upland and grown only in a small scale. The harvest is usually reserved for home consumption or special occasions. The traditional varieties used in the lowland and upland culture are shown in Appendix Tables 5.12.6a and 5.12.6b respectively.

Almost all farmers observed the modern varieties to be highly dependent on fertilisers, more susceptible to pests and diseases and expensive to care for. However, despite these negative characteristics there was wide adoption of modern varieties. The wide adoption of modern varieties may be due to effective advertisement and Department of Agriculture’s recommendation or to some of the perceived good characteristics which are related to the promise of a good yield. Modern varieties are early maturing, and known to have more yield per unit land area. A promise of good yield can appeal for its correlation to a sense of pride and dignity of a farmer. In the Philippines, the responsibility of feeding the family, looking after the economic welfare, rests on the shoulders of the man. If his production fails, it is as if he has failed his whole family. It means much more than the mathematics of production and efficiency. This means pride and dignity.

A Sense of Sustainability of Rice Production

It has been observed that there exists a close relationship between low productivity and high incidence of poverty, particularly for lands which are planted with rice and
corn (APST, 1986). Since the source of income for farmers is farming, their sense of hope for a better and good quality of life can be closely linked with their hopes for increased farm production.

Looking at production retrospectively could indicate sustainability. Declining production would indicate lack of sustainability. In the Philippines, rice farm production is measured by yield in number of cavans per hectare. One cavan of rice would weigh between 45 to 50 kilograms fresh weight of rice. Figure 5.7 shows the historical record of yield of rice for the past ten years which indicates an increasing trend of production. With this trend, farmers may not yet be as alarmed as when declining production is observed. Many farmers were more concerned about high production than any other properties of an ecosystem.

![Historical record of yield](image)

Figure 5.7. Historical record of rice yield in ten-year time (1982-1991).
Considering the present farming system and farming practices, we tried to elicit farmers' forecast of farm production in the years to come. About 42% of farmers believe that farm production will be increasing while 33% of them predict that it will remain the same and the other 25% forecast that the yield will be decreasing. Those who believed that the rice production would be increasing based this on the potential of modern technology. The prediction that rice yield would be the same was based on an observation that farm production constantly fluctuates - at one time it is high, at another time it is low. So, they assert that it will just be the same. Those who predicted a decrease in future rice production based it on the experience of farm problems such as golden snails which will be discussed in the next section.

Among farm problems (Appendix Table 5.12.10), golden snails was considered to be the worst of all. The destruction of crops due to golden snails is more severe than any of the natural calamities and diseases of rice. While the other factors are seasonal, golden snails are without season and persistent. Other problems include drought, floods, typhoons and rice diseases in descending order of importance.

On Livestock Production

Value of Raising Animals

In our community, animals are raised in the backyard on a very small scale, an average of four (native) chickens and one pig per household (Appendix Table 5.12.13). The size of the flock is found to be not related to household size (Bunan, 1985; Gerona, 1985; and Garcia, 1986).
Animal raising was not expected to be a major source of income for the family, but rather an additional source of income which was reported by about half of all raisers as their reason for raising animals (Figure 5.8 also Appendix Table 5.12.14). The average annual income per household from animal production was 3,836 pesos. This was equivalent to one month salary of an average government employee.

Chickens are raised as a source of eggs and meat, while pigs are raised for cash. Carabaos are raised for draft purposes such as for land preparation and transport of farm products. Some people also raise animals for their aesthetic and recreational value such as for cockfighting and as pets.

**Figure 5.9. Reasons for raising animals.**

![Diagram showing reasons for raising animals]

**Awareness and Access To Extension Services**

The people in our community were generally aware of extension services to livestock production, but very few availed themselves of these services (Appendix Table 5.12.15). It is an interesting thing to note a great majority of farmers know about that the trainings on animal production, but only a few participate in them. Some
participants have expressed the lack of relevance of the subject matter to their need as a reason for not participating in training programs.

Another program for livestock production was upgrading of pigs which was adopted by only 14% of pig raisers. Its non-adoption was due to: (1) inaccessibility of the service; (2) the service fee which had to be paid in cash (unlike natural breeding which is usually paid in kind); and (3) the success rate of artificial insemination was not high enough to encourage pig raisers to adopt this technology.

*Some Constraints To Animal Production*

Farmers perceived the following constraints to animal production (See also Appendix Table 5.12.17):

- **Lack of capital.** This was considered the number one constraint, especially for those interested in increasing the size of their operation.
- **The problem of pests and diseases.** It was common and almost a regular experience among raisers to lose their animals particularly the native chickens and pigs because of pests and diseases. However, despite the regular epidemic of diseases every year nothing was being done to control the diseases. Prevalence of pests and diseases in poultry and swine is at its peak in May and August (Figure 5.9 and 5.10).
Figure 5.9. Prevalence of pests and diseases in poultry.

Figure 5.10. Prevalence of pests and diseases in pigs.
• Fear of animals being stolen. This factor was identified in a specific time-context, that is, when the people have not yet recovered from the fear of the insurgents. It was a common experience in the mid-70s to mid-80s that the insurgents would come to the house of a farmer and request to slaughter some animals for a festive meal. The fear of losing their animals was further complicated by a greater fear of the insurgents themselves.

• Lack of knowledge was considered a constraint particularly by those aspiring to expand their animal production. They think that their experience with one pig or two could not equip them with enough knowledge for a bigger scale of production.

• The high price of inputs was considered as a constraint to animal raising particularly by those who were raising more animals than could be supported by table slops and rice bran. They had to buy commercially mixed feeds which was expensive.

• The uncertainty of the market was an experience of small scale raisers who had not established a steady market outlet. The sale of animals was generally through middlemen who reap more profits than the producers themselves.

The absence of good sites for raising animals was also ranked as a constraint to animal production. The problem of space was put forward by the raisers of native chickens which because of their scavenging behaviour need a bigger space. Similarly, this was a problem for backyard pig raisers. With more than five pigs, the neighbours who are close could complain about its nuisance.

*Management Practices of Native Chickens*

Most raisers let the native chickens loose in the backyard, but house them in the evening. Housing can be in separate chickens shed, a simple chickens house or just under the farmer’s house. Very few confine their chickens completely except in case of a commercial raiser of broilers and those raising some game cocks. Generally
chickens scavenge in the backyard. Some farmers feed them kitchen waste, rice middlings, milled or unmilled rice.

Health of chickens was generally left to the care of nature. There was no medication at all given to native chickens even when there was an epidemic.

*Management Practices Of Pigs*

Most raisers provided housing for the pigs. Although it was becoming a less popular practice, some pig raisers tether them in trees or in fences. Some keep them under their house. Still others let them loose grazing under the bush, particularly people living in the hills.

A great majority practice wet feeding, whether they are using kitchen waste alone or combination with rice bran, corn and root crops. Some raisers prevent pests and diseases by immunisation against hog cholera, deworming and by antibiotic feeding.

*Management Practices of Goats*

Compared with native chickens and pigs, goats are relatively more resistant to diseases. Raisers had not mentioned any disease in goats. Goats subsist mainly on grasses and some shrubs. Concentrate supplementation was also provided by some raisers, but consists mainly of rice bran. Culling and selection was done by some raisers. Selection was based mainly on body size and prolificacy. Culling was done by castrating less desirable males, or slaughtering, or selling them live. Weaning was not generally practiced. Kids are not separated from does, but are allowed to suckle until weaned naturally.
Research Priorities

Research priorities were established by asking the farmers, "Suppose I am a research agency or simply a researcher trying to explore what best to study, the result of which should contribute to the improvement of (poultry) production in our community, what aspect do you suggest I research on?" The farmers were allowed to speak spontaneously of their research concerns. What they mentioned they were asked to rank according to the importance they associated with it.

In poultry, they suggested improvement of the production performance of native chickens. They meant that native chickens should produce more eggs and reach finish weights earlier. They had an idea of crossing the native chickens with breeds that produce more eggs and grow faster and heavier.

Equally important to improving the performance of native chickens was health care. When they said there was a need to develop vaccines, bacterins and antibiotics, they meant that there was a strong need to prevent and control the major poultry diseases and parasites.

For goats, the farmers suggested improving the genetic potential of native goats mainly to improve its prolificacy. They were also interested to learn about raising goats in an economic size. Economic size is the number of animals that can be optimally supported by farm resources like land space and pasture and the level which can give the highest return for least cost. When they suggested a grazing trial, they meant that they needed a demonstration trial that goats can thrive well under coconuts without affecting coconut production. They were also interested in integrating goats, but with silviculture and pasture. Their question was ... would goats thrive under the natural ecosystem of coconut farms with its little forest, shrubs and native pasture? Their interest in marketing research was simply to find a sure market for goats.

On Coconut Farming
Coconut was considered an important source of living for many people in the community. Harvesting of coconuts is done about every two and a half months. The average income per harvest is 2,036 pesos per household. If calculated per month it would give an average of 847 pesos per household. This amount was barely enough for the food needs of the family. So those engaged in coconut farming usually did other supplementary livelihood activities such as fishing, gathering firewood or making charcoal from coconut shells. So when asked about the possibility of raising goats under coconuts to maximise its production, the concept was acceptable to most of them.

_Possibility and Acceptability of Goats Under Coconuts_

Coconut farmers believed that raising goats would supplement their income (Appendix Table 5.12.26). They believed that goats could be a source of meat for the family on special occasions, like birthday parties, anniversary celebrations or fiestas.

However, there were aspects of goat production they were not sure about such as their compatibility with coconuts, source of stock, market outlets, security of not being stolen and their technical competence in its care and management.

_A REFLECTION ON THE RICH PICTURING ACTIVITIES_

During the First Phase of this research, we observed an interesting dynamics of our people relative to the present situation: When speaking individually, there was an apparent tone of resignation among many of the respondents. On the other hand, there was an outstanding enthusiasm during the workshops and dialogues in exploring possibilities of improvement. This gave us (the core group) an insight that group
participation mutually encouraged the participants. We observed an expression of self-confidence when in a group.

Exploring possibilities for improving the situation was inspired by that hope for a cooperative effort. The seeming despair about the utter poverty and its related difficulties is interestingly transformed into great enthusiasm when the participants gather together.

*Is it in solidarity and cooperation that the poor gather strength?*

Our people were just so passionate to improve the quality of life through cooperative development, wherein they believed that a balance of human and economic development could be achieved. It was the generative theme that recurred throughout the research process - the theme that generated much enthusiasm.

The first phase of the research, as it was the initial exploration of the possibilities for improving the situation, had achieved among other things, *a better understanding of the situation of the community.*

Initially, the people seemed to view their own situation of economic depression isolated from the context of the community or the society at large. This caused them feelings of resignation, guilt and powerlessness over the situation. However, the chance to look at the situation of the whole community in a collective perspective through our research activities gave them a sense of solidarity. After all, their personal experience was a collective experience. This sense of collective experience and solidarity would later reveal its power of inspiring collective action which unfolds in the next two phases of the research.
INTRODUCTION

This Chapter unfolds the story of our quest for desirable and feasible changes. At this phase of the research we had reached the level of confidence of understanding the situation. Informed by the rich picture that was built up in the First Phase of the research (Chapter 5) and our personal experiences of the process, the core group initiated exploring desirable and feasible changes. If indeed, development is about making beneficial changes to a situation, “the lesson here is not to remain preoccupied with analysing the existing situation, but focus on how the possibilities for making improvements can be reinforced to make them more probable” (Uphoff, 1992).

The rich picturing activities were done with the people of the community through multi-sectoral representation, dialogic groupings of the barangays and the respondents to the interview. So the rich picture of the situation of our community became a shared awareness to a great number of people.

Phase 2 of this research consists of three phases which were more an emergent process than a research design. It was the openness and sensitivity to the unfolding of events that led us to these three phases of defining the desired change:

Phase 1 - Considering the broad issues of improving the community;

Phase 2 - The Search for a technical intervention strategy; and

Phase 3 - Sensing the leverage for change.
These three phases were recursive processes of the Soft Sytems Methodology particularly at the following stages: relevant systems and root definition; construction of conceptual models; and debate on feasible and desirable changes (Figure 5.1) with the levels of participation shown in Table 6.1.

Table 6.1. The level of participation in conceptual modeling and Defining Changes.

<table>
<thead>
<tr>
<th>SOFT SYSTEMS METHODOLOGY</th>
<th>PHASE 1</th>
<th>PHASE 2</th>
<th>PHASE 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems Thinking:</td>
<td>Broad Issues of</td>
<td>Search for a</td>
<td>Sensing the</td>
</tr>
<tr>
<td>Relevant systems and root definition</td>
<td>Community</td>
<td>Technical Intervention</td>
<td>Leverage</td>
</tr>
<tr>
<td>Construction of conceptual models</td>
<td>Improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Core Group</td>
<td>Core Group</td>
<td>Core Group and</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Multi-sector</td>
</tr>
<tr>
<td>Debate/ Defining Changes</td>
<td>Multi-sector</td>
<td>Farmers</td>
<td>Multi-sector</td>
</tr>
</tbody>
</table>

The recursiveness of the process was dictated by our experience of gaps from the debate on feasible and desirable changes to its implementation. It was assumed that if true interests were reflected in the changes defined during the debate, it would create enough “social energy” for its implementation. But as will be unfolded in this Chapter, the “power” for implementing change was a gradual process that built up through our dialogues in our consistent search for change that was not only desirable, but also feasible in the context of our community.

This consistent search for desirable and feasible change was viewed through multiple perspectives as reflected through the three phases of defining changes. From considering the broad issues of improving the community to a technical definition of change, we finally identified the “leverage” for change. (This notion of leverage is explained in a later part of this chapter). The story of how we struggled through identifying the “leverage” for change will be unfolded in the succeeding sections.
Following the Soft Systems Methodology, systems thinking which consists of two stages: 1) relevant systems and root definition and 2) conceptual modeling prepares ground for the debate for a desirable and feasible change. To identify a relevant system is to take a viewpoint to see the situation. A relevant system is an abstract conceptualisation of a purposeful activity that is hoped will promote action for improvement of the situation. A root definition is an idealised view of what the relevant system should be. The aim is to draw out what is to be done, why it is to be done, who is to do it, who is to benefit and suffer from it and what environmental constraints limit the actions (Flood and Jackson, 1991). A conceptual model is an account of activities which the ideal system must do in order to fulfil the requirements of the root definition. The purpose of the conceptual model is to accentuate the gaps between the “ideal” and the “reality” and trigger a debate on desirable and feasible changes.

It is suggested in the Soft Systems Methodology that systems thinking may or may not involve those in the problem situation depending upon the individual circumstances of the study (Checkland, 1981:162). In this research, we considered involving as many people as possible in the systems thinking and also considered involving the same number of people as in the dialogues and workshops. Finally, we decided the core group would undertake the task of systems thinking without imposing further on the other participants. Our logic was as follows:

1) Economy of efforts on the part of the people. Participants of the multi-sectoral workshops usually walk a mile or two or even ten miles to come for the research activities. There had been a great deal of participation in the rich picturing activities as there would have been in the other phases of the research. The core
group decided to spare the other participants from sacrificing a day's work. So the core group did the conceptual modeling, but incorporated the people's ideas, insights and ideals as expressed in the informal interviews, the workshops and the dialogue where they had articulated their viewpoints.

2) **Language difficulty and time constraints.** Introducing the methodology to the core group necessitated our learning together of its principles and practice for the methodology was new to me, too. Systems thinking was the hardest part in terms of language. The other phases such as the rich picturing, debate and implementing changes are in the real world situation that required the normal language of the problem situation. Although the research activities required a constant translation from English (in terms of conceptualisation) to our dialect (in its implementation and documentation) and back to English (for thesis writing) to translate the systems language such as relevant systems and root definitions or conceptual modeling would be as difficult as it requires a language of the systems. It would require a serious time-consuming effort to translate the systems language to the multi-sectoral participants.

3) Moreover, as experienced in this research, the participation in conceptual modeling was not a sensitive nor a critical stage of the research process in the light of its emancipatory character. As will be articulated in Chapter 8, it was the participation in the sharing of awareness about the situation (rich picturing), debate on feasible and desirable changes and exploring ways of implementing them that unleashed the emancipatory character of the research process.

What follow is an account of the systems thinking activities the core group did through the mini-workshops on:
1) Rich picture;
2) Relevant systems and root definition;
3) Conceptual modeling;

**Mini-Workshop on Rich Picture**

This workshop was a looking back at the rich picture of our community articulated in chapter 5. It was time to see it again through the “lenses” of the core group. We decided to make sketches or drawing that would portray our pictures of San Fernando. Then each one discussed the meaning of his/her drawing that led us to a joint construction of a rich picture of our community.

As a metaphor, our joint picture was of San Fernando as a tilted boat where on one end there are more people than the other end ... in danger of sinking unless a balance shall be established. There is an imbalance of resource distribution. The poor have limited opportunities while the rich have sufficient resources and easy access to social privileges. Many of the people in the community are passive about the situation. Poverty is believed to be what it is meant to be and nothing can be done about it. The government seems insensitive to the plight of the poor. However, there are some people who believe that the life of the poor could be better through cooperative development.

With this rich picture of San Fernando as commonly shared by the core group, we moved to the next stage of the systems thinking process: identifying the relevant systems and root definition.
1) Rich picture;
2) Relevant systems and root definition;
3) Conceptual modeling;

**Mini-Workshop on Rich Picture**

This workshop was a looking back at the rich picture of our community articulated in chapter 5. It was time to see it again through the "lenses" of the core group. We decided to make sketches or drawing that would portray our pictures of San Fernando. Then each one discussed the meaning of his/her drawing that led us to a joint construction of a rich picture of our community.

As a metaphor, our joint picture was of San Fernando as a tilted boat where on one end there are more people than the other end ... in danger of sinking unless a balance shall be established. There is an imbalance of resource distribution. The poor have limited opportunities while the rich have sufficient resources and easy access to social privileges. Many of the people in the community are passive about the situation. Poverty is believed to be what it is meant to be and nothing can be done about it. The government seems insensitive to the plight of the poor. However, there are some people who believe that the life of the poor could be better through cooperative development.

With this rich picture of San Fernando as commonly shared by the core group, we moved to the next stage of the systems thinking process: identifying the relevant systems and root definition.
Mini-Workshop On Relevant Systems and Root Definition

With an understanding of the situation, we identified some issues which would be the bases of identifying relevant systems. These issues follow:

- Imbalance of resource distribution
- Wide gap between the rich and the poor
- Massive poverty
- Widespread unemployment
- Low household income
- Lack of opportunities for education
- Food insufficiency in many families
- Widespread belief in “luck” or “fate” (which indicates sense of powerlessness)
- Lop-sided program of the government
- Lack of protective policies for prices of farm inputs and farm produce

Considering some possibilities for improvement, the core group identified the following relevant systems and its root definitions:

1) A system of providing opportunities for the economically depressed families to increase their income to satisfy their basic needs by education, technical and financial support and direction.

2) A system of appraising farmers on the latest farm technologies to insure bountiful harvests for food sufficiency and maximum gains.

3) A system to implement and improve livelihood programs for the poor by increasing local government funds through efficient tax collection.

4) A system of enlightening the well-to-do families to share their abundant resources to the numerous poor constituents of San Fernando.

5) A system of massive education/information dissemination for the people to be aware of duties and obligations of citizenship.

6) A system to awaken the people to their capacities for the development of their families and the community.

7) A system that fully responds to the needs of the people.
The step from root definition to conceptual modeling is the most rigorous in the whole methodology as Checkland (1981) acknowledged and as borne out in our experience. As will be realized, our conceptual models may be seen as technically deficient considering lack of clarity in terms of the input-output aspect of the system. Furthermore, while we intended to construct an issue-based conceptual model it turned out to be task-based. However, as we learned the methodology, a better conceptual model based on the issues identified earlier was constructed later (Phase 3 of defining changes). Despite being amateurs in this rigorous conceptual modeling, we achieved the primary objective of the conceptual models, that is, to trigger a debate on desirable and feasible change.

What follows is an account of our mini-workshop with the core group on the construction of conceptual models.

**Mini-Workshop On Construction of Conceptual Models**

From the list, we chose the first and the second relevant systems and root definitions and we constructed their corresponding conceptual models. We believed that the resulting conceptual models would be able to evoke a "debate" on feasible and desirable changes. The succeeding section discusses the logic and underlying concepts of the conceptual models we constructed. The conceptual model of ensuring satisfaction of basic needs (Figure 6.1) was constructed based on the current condition of massive poverty. It is formed from a relevant system and root definition:

A system of providing education, technical and financial support and facilitation especially for the economically depressed families to increase their income to satisfy their needs.
Figure 6.1. Conceptual Model on ensuring satisfaction of basic needs
Its CATWOE elements are as follows:

C - Customers: economically depressed families
A - Actors: local government leaders and researchers
T - Transformation: Increasing household income to alleviate poverty
W - Weltanschaung: Development is possible through collaboration of the government and people's organizations
O - Owner: the united people of the community
E - Environmental Constraints: resources of the community and attitudes of the people.

This model consists of five sub-systems which are: (1) Awakening; (2) Educating; (3) Team Building; (4) Sustaining the Initiatives and (5) Improving Productivity. A monitoring and control mechanism was also built-into the conceptual model. These five sub-systems and its logic will now be discussed.

Awakening

The core group perceived a degree of lethargy among majority of our people. While they are aware of their situation in the family, they are not aware enough of the situation of the whole community. There is not a oneness of consciousness over some issues in the community. The people seem to have learned to passively adapt to the apparently unchangeable situation.

The heart of development is people. Sider (1990) emphasised this when he considered development as a process of conscientization. He incited that fundamental change must arise out of a new consciousness in the minds of the poor. "Only when the people come to understand their own situation, and analyse the status quo, realizing their power to change things, will permanent substantial change occur" (Sider, 1990).
Educating

The concept of education embodied in this model is not didactic where one teaches and another one has to learn. It is a continuing education model where there is constant awareness of the situation in life and dialoguing with the people in the community exploring together what possibilities there are, then testing these possibilities in conjunction with their own resources and capabilities. Working together, they shape their own future, their own destiny.

This is the type of education that generates what Soedjatmoko (1987) called social learning. It presumes a learning environment characterised by social interaction. It is a collective process where people learn not only to adjust to change, but also to direct change to suit their own purposes.

With this conceptual model there are suggested themes for learning: (1) resource management; (2) cooperativism; (3) livelihood; (4) leadership and value formation.

(1) On Resource Management

While the poor have the least of the resources, they are not without them. Maybe for the poor, the only resource they have is themselves: their will, their enthusiasm, their potential. Starting with what little they have, we realized the need to learn to manage it.

(2) On Cooperativism

Perhaps the most central and yet least tangible of development resources, is the social energy created by the commitments and interactions of people working toward shared goals (Korten, 1987).

Feeling with our people the powerlessness and seeming helplessness of being poor, we dreamed of a community of people sharing their resources, their ideas, their experiences, their struggles and their services in a spirit of cooperativism. In collective
and cooperative efforts there is power. But looking back at some sad experiences of cooperatives which have been initiated by the government and have failed, we felt the need for cooperative education. An education that is based not only on the systematised knowledge, but learning from the intuition of the people which has been sharpened by their own experiences.

(3) On Livelihood

While livelihood is very economic in nature, viewing it in the context of the poor it has deeper meaning than just earning a living. As Korten (1987) suggests, human meaning of development is found in its contribution to actualising the highest potentials of human life. Achieving an economic standard that ensures for all people the satisfaction of basic needs is one fundamental step toward this goal. Moreover, gainful livelihood activities boost one’s self-esteem and also fosters good relationships in the family - it is a means for sharing, a reason for rejoicing.

(4) On Values Formation and Leadership

Reviewing some development programs in the community, particularly the cooperative development programs, the people realized that these have failed not because of lack of financial assistance for they appear to be funded well enough by the government. They failed, they thought because of lack of good values among the implementors and the supposed beneficiaries.

One farmers cooperative in one barangay that was proving itself successful in sharing its services and benefits among its members, in its management and leadership. The people in the community believed that its success was founded on a strong value formation. A concept of development measurable only in terms of the monetary value of physical production and consumption is particularly alien to the deeper cultural, physical and religious traditions of Asia (Korten, 1987). Hence, the conceptual model tries to incorporate values formation even in the apparently purely economic effort of moving from a low household income to a higher household income.
The objective of the training for leadership was to help people help themselves; for them to be inspired to take the initiative and take the leadership role for themselves. As Nyoni (1991) said, "No development program has the right to exist unless it helps people to stand on their own feet."

**Team Building**

Based on the recurrent theme, "in unity there is strength", this sub-system was envisioned to revitalise the sense of solidarity. Since the participants were not yet bound by any organizational commitments, it was seen as necessary to develop teamship or cohesiveness in the group.

**Sustaining the Initiatives**

Ensuring cooperation and continued active participation is often difficult to achieve. What we call a *ningas kugon* syndrome or a bushfire character is quite a common experience in a group. Like a bushfire, the enthusiasm of the people builds up quickly, but also dies quickly.

If the people continually experience the fruits of their efforts, this would serve as constant motivation for cooperation. This led us to create a system that is hoped to encourage greater and sustained participation: a (sub)-system envisioned to increase productivity.

**Increasing Productivity**

This (sub)-system on increasing productivity was articulated further as a system with its corresponding conceptual model which will be discussed later. We thought that the satisfaction of a felt need e.g. increased productivity would sustain participation and cooperation. It is recognized that instilling enthusiasm is the basic dynamic of any self-help program, the driving force that is indispensable to all "true human development" (Bunch, 1985).
Organize a Monitoring and Control Mechanism

The final model is that of a system which could adapt and survive via a process of communication and control, in a changing environment. Thus, it was necessary to add this monitoring and control sub-system which examines the operation and takes control action to change or improve them.

The core group also realized the need for this mechanism especially considering the need of the people for support. As conceived in this model, the monitoring and control mechanism shall be staffed by some persons from our community who are committed to its development. This group of committed persons in linking with the service agencies in the community shall monitor the operational activities and take control always remembering that this model is hoped to help the poor of the community to have a better, fuller life.

Another conceptual model to improve farm productivity (Figure 6.2) was constructed based on the following relevant system and root definition.

A system of educating farmers on the latest farm technologies to insure bountiful harvests for food sufficiency and optimum gains.

Its CATWOE elements are as follows:

C - Customers: crop and livestock farmers

A - Actors: researchers and other people committed to our community development.

T - Transformation: education about adaptable farming technologies.

W - Weltanschaung: Improved technology can be handled constructively and adapted appropriately to social needs (Adapted from Soedjatmoko, 1987).

O - Owners: the interested farmers of the community in close linkage with government agencies.

E - Environmental constraints: climatic factors, resources and attitudes of the people.
This conceptual model on improving farm productivity (Figure 6.2) was based upon a consideration that a majority of the families in the community were dependent on farming as their main source of living. It was a complementary system to the conceptual model on ensuring satisfaction of basic needs (Figure 6.1), for as farm productivity is increased, household income is also likely to increase.

This conceptual model on improving farm productivity was envisioned to improve the farming systems to achieve an increased productivity. It was hoped to insure food sufficiency for families of the community. This was based on current conditions of community life which have caused many community problems to be translated into technical questions requiring some degree of technical understanding (Littrell and Hobbs, 1989). This was also a response to a challenge of handling science and technology creatively to be responsive to social needs. (Soedjatmoko, 1987).

A Reflection on Our Experience of Constructing Conceptual Models

As we were all beginners in this methodology, constructing the conceptual models was for us a rigorous and enjoyable intellectual exercise. Our confidence did not depend on our competence of conceptual modeling. Having articulated the logic of our models, we were confident that it would achieve its purpose which was to provoke a "debate" on some feasible and desirable changes.

After constructing the conceptual models, we were yet to be challenged by a more daunting task - debate on feasible and desirable changes.
HIGH PRODUCTIVITY

Figure 6.2. Conceptual Model on improving farm productivity
Debate (and Dialogue) on Feasible and Desirable Changes

A central tenet of the soft systems approach is that improvements in complex problem situations are most likely to be brought about through the sharing of perceptions and through persuasion and debate. It is expected that sharing of perceptions will generate proposals for change to which the participants will be committed (Naughton, 1984). Guided by this tenet, the core group organized this multi-sectoral workshop to provide an occasion for such persuasion and debate on feasible and desirable change.

To build up an atmosphere proper for the comparison of the conceptual models with the reality, we reviewed the rich picture of San Fernando (discussed in Chapter 5). This review of the rich picture was aimed at accentuating the gap that exists between the reality and the ideals expressed in the conceptual models. It was expected that identifying the gaps or issues would likely encourage a debate that would likewise lead to defining of changes which would be systemically desirable and culturally feasible.

Comparing Conceptual Models and the Reality

As soon as the conceptual model on ensuring satisfaction of basic needs (Figure 6.1) was presented, the participants raised some points which revolved around the issue of leadership and responsibility over the system.

The sub-system to Awaken (or conscientize) stirred the participants to even question who really is or are responsible for the implementation of the system. Who shall awaken and who shall be awakened? They thought that initiative should come from the barangay leaders. Community development is perceived to be a part of the obligation of the barangay leaders in as much as the barangay council has committees on agriculture and development.

For them, it was clear that the who to awaken were the people of the whole community. For they believed that indeed, only the people who were aware of the
situation could move and work for any improvement. But who should initiate this was a really big issue of the conceptual model. Who would take the leadership?

Some participants argued that while the elected barangay officials are mandated for a kind of leadership, the initiative of any social or community actions need not rest on them. “We should not depend so much on the government or outside support. We should start from ourselves,” the participants advocated.

With this point, another question was raised. Who are these referred to as we? Naming of the “we” was really critical as this also pointed out ownership and responsibility of the system.

To the question of who are these “we” who should initiate any change, they thought that anyone or any family in the community could do it. They thought that perhaps a family could start a livelihood program and by sharing with the neighbors their experience, social learning could spread through the whole barangay. They expected that as they grew in their enterprise they might be able to identify common issues and needs that could prompt them to organize themselves into cooperatives. As a cooperative organization they could have easier access to various related services of the government.

While it was becoming clear that either the barangay officials or the common people could initiate the implementation, the group was not yet content in not knowing a specific person or persons who would assume the leadership. Then one participant challenged the other participants with a passionate question, “Can we not start it from among us, the participants of this workshop? Are we not awakened? Are we not inspired to move?” And there was applause!

They acknowledged that the series of workshops and dialogues facilitated by this research had awakened and inspired them to search for alternative ways of improving the situation of the community. They also acknowledged that this model was started by the very process of this research. They agreed they needed a specific livelihood
program that they could start with and then move on with the other aspects envisioned in the conceptual model.

They realized that by participating in the research process, they were informed about the community and had a better understanding of the issues in the community. Their awareness of the situation and their new consciousness of the possibility of changing the situation was like a seed sown on fertile ground. It could grow and develop like a tree of community development. One participant put it very outstandingly when he said, “Truly, I tell you, it’s only now I realize that in my mind, there are good ideas, just there, unknown, untapped. But with this dialogue, these ideas are brought to my consciousness. Now, I believe we can start something good for our community. Now that we know our common needs, we can move together as one people, as one community.”

They appreciated very much sharing their consciousness and they said, “A road in darkness, when somebody brings light, it becomes bright. And we can move ahead. God is the first one to awaken us. He made us understand His words and so we know how to follow Him.” He further said, “This research has awakened us. I hope it will serve us a light on our way towards improving our community.”

Conceptually, the issue of who was to start the awakening process was resolved. It would start from anyone of the “awakened” participants of this research by demonstrating a small-scale livelihood project, sharing this experience and organizing with others a cooperative. It was hoped a cooperative would institutionalize a support system for improving the situation of the community. A cooperative while it achieves its psycho-social function of boosting the morale and confidence of the members by its unity, also confers a legal personality to the group. Having a legal personality, they can avail of some loans from the banks which they could not have as individuals due to having no collateral.
After the discussion of the issues elicited by the presentation of conceptual model on ensuring satisfaction of basic needs, the other conceptual model on improving farm productivity was then presented. The discussion revolved around the issue of its feasibility. One participant raised the issue of technology and financial constraints, “Our low productivity may be due to low adoption of farm technology. But the main problem of farmers is capital. Secondly, we don’t have irrigation. If these constraints on capital and irrigation can be solved, improving farm productivity as envisioned in the conceptual model will be feasible.”

These problems of farm capital and irrigation inspired a discussion on the possibility of forming a Cooperative as a strategy of solving the said farming problems. The idea of organizing a Cooperative enthused the participants especially as they considered the following factors/problems:

1) Small landholdings. This reflects being resource-poor. In cooperatives, it is in pooling resources together that it becomes richer. “How can anyone with one hectare of rice land afford or even consider having an irrigation pump?” they reasoned out. “We need cooperatives.”

2) Lack of capital for farming investment or any other livelihood projects. This came up with the realization that most farmers are victims of usury which can be from 150% to 300% rate of interest per annum if from private money lenders or 36 percent per annum from the rural banks.

3) Unavailability of an irrigation system in the community. The farmers had realized that the benefits from modern varieties and modern technology is just nullified by lack of control of irrigation. Fertilizers can just dry up or even damage the crops when applied without sufficient irrigation water. An irrigation system that could serve the small farmers needed a cooperative effort.

4) Imbalance of prices of farm inputs and farm produce. The farmers argue that “it doesn’t matter even if the prices of farm inputs are high if only their produce would
also price high. Would it not be fair?” Unfortunately, they felt powerless over the instability of prices especially at harvest time when they could not even afford to delay their selling of the products - they had to pay some loans or pay for some needs of the family. Besides they had no postharvest facilities that could keep their produce without deteriorating its quality. “Oh, specially when its rainy days, when we can not dry our rice and we have no other choice, but sell it away or lose, the price of the rice is just like “pancakes”, extremely cheap, they lamented.

5) Lack of confidence. Some participants expressed that maybe the major constraint in community development was the attitude of the people: our attitude. “We are not confident that we can do it.”

One participant was very passionate to express his vision of cooperative development. He strongly believed that many constraints, especially in farming could be alleviated by organized cooperatives. This must also have enthused others to say, “If others can, why can’t we?”

Then came the issue of who should initiate organizing a cooperative?

Some said the barangay officials - it is their responsibility!

“But can we not also start from ourselves?”

“Who are these we?”

Then one participant said: “I and you (pointing all other participants) each one of us!”

“We who are awakened. We who have participated in this research, can we not?” “We can organize a cooperative!”

A possibility of improving the situation was sighted - formation of a cooperative.

Implementing Changes

Following the Soft Systems Methodology, the supposed next stage is implementing the changes so defined. In the case of this research, this stage had to be delayed in time. I had to come back to the University of Western Sydney, Hawkesbury after the
first phase to present my research work to the postgraduate community of the Faculty of Agriculture and Rural Development.

PHASE 2 - SEARCH FOR A TECHNICAL INTERVENTION STRATEGY

Returning to San Fernando the second time after being away for six months, I sensed that the enthusiasm that was once stirred seemed to have receded. It was for me a moment of trying to sense once again if the enthusiasm was still there in the hearts of our people.

After the “debate” we were able to conceptualize what “feasible and desirable” changes could be accomplished, but we had not reached the point of coming up with “some strategies to achieve them”. As I reflected I realized there was no one yet nor an organized group that could own and pursue the desired changes. In a corporate organization the Management would implement the “feasible and desirable changes” arising from the Soft Systems Methodology. It was then I realized people coming together do not instantly form a cohesive group.

Thinking of the next step of the research process, I considered the enthusiasm for cooperative development that was indicated in the first phase. Considering the context that there there was no cohesive group emerging at that time, I thought that by focusing on farming systems improvement, we could collaborate in discussing technical strategies which could be acted upon by individuals. This would not require a cohesive group to own the process of implementing change.

This interest in a technical intervention strategy to improve the situation of our community directed the course of this phase of the research. Guided by the “Spiral” of methodologies that allows a movement from holistic to reductionist research we
explored some technical areas of agriculture in our search for situation improvement. But as will be unfolded in this phase of the research, the needs of the people were beyond the bounds of technology.

This Phase 2, our quest for a technical intervention strategy to improve the situation of our community consists of four stages listed below. This phase of the research as it was guided by the “Spiral” used quite a different language from that of the Soft Systems Methodology. However, this phase of the research can be seen to follow the logic of and corresponds to the stages of SSM:

Stage 1 - Understanding the farming systems of the community through the Farming Systems Analysis (or rich picturing);

Stage 2 - Designing a technical intervention strategy (or conceptual modeling);

Stage 3 - Exploring the feasibility and desirability of the design (debate on desirable and feasible change);

Stage 4 - Implementing changes

STAGE 1 - UNDERSTANDING THE FARMING SYSTEMS OF THE COMMUNITY

In Chapter 5, the farming systems situation was described. But at this stage when evolving a technical intervention strategy was in focus, a better understanding could be achieved by considering the perception of other participants. There were at least two important themes that the core group decided needed an affirmation from other research participants:

One was the acceptability of goats for integration with coconuts. It was decided to explore how to enact such a good idea of crop-livestock integration and the second was the research priorities. It was decided to explore how to start the “first little step” which when accomplished could improve the farming systems in our community. We
decided to hold a dialogue with coastal and upland barangays as these were the areas most concerned about the above mentioned themes.

**Dialogues With The Coastal Barangays**

**Verifying the FSA results**

The results of the Farming Systems Analysis which indicated that generally, the coconut farmers favorably perceived the concept of goat-coconut integration was not confirmed in this dialogue. When the issue of goats destroying other crops arose, a story unfolded.

One coastal barangay had a sad experience of raising goats. Some years ago one family in the barangay was raising goats. They just let them loose in the hillsides for pasture. One time the goats destroyed the ornamental plants of another family which caused a feud between these two families. Since these two families happened to be the two biggest families (counting the number of relatives) it became like a quarrel in the whole barangay. It made the people almost swear not to ever raise goats again.

On hearing people from other barangays enthused over the idea of goats-coconut integration, the participants from the barangay who had the problems with goat raising, agreed that they could also recognize the benefits from raising goats. But they thought that to venture into raising goats would require much capital for fencing of the pasture area. One participant raised the issue of capital quite strongly, "Why should we bother discussing how to take care of and manage the production of animals? what we need is starting capital for any livelihood project."

The issue of financial assistance was quite a sensitive issue. At this point, if I chose to emphasize that our research project had no financial assistance at all (which was true and which I explained from the very beginning), it might close their creativity to exploring other possibilities.

Instead, I told them this story:
The Golden Eagle

A man found an eagle’s egg and put it in the nest of a backyard hen. The eaglet hatched with the brood of chicks and grew up with them.

All his life the eagle did what the backyard chicken did. He scratched the earth for worms and insects. He clucked and crackled. And he would thrash his wings and fly a few feet into the air like the chickens. After all, that is how a chicken is supposed to fly, isn’t it?

Years passed and the eagle grew very old. One day he saw a magnificent bird far above him in the cloudless sky. It floated in graceful majesty among the powerful wind currents, with scarcely a beat of its strong golden wings. The old eagle looked up in awe. “Who’s that?” he said to his neighbour. “That’s the eagle, the king of the birds,” said his neighbour. “But don’t give it another thought. You and I are different from him.”

So the eagle never gave it another thought. He died thinking he was a backyard chicken (de Mello, 1982:120).

This was to challenge their consciousness. Like the eagle, they have the potential to fly high. While understanding their need for financial assistance, it is not everything. I shared with them my personal conviction that we can start from whatever meager resources we have. I also shared with them “the power of thought to negate accepted limits” (Freire, 1972) and my favourite expression, *If you can imagine it you can achieve it. If you can dream it, you can do it.*

With this sharing of faith and conviction, one participant said, “My hope is first of all in God, second is in my decision and willpower.” It was confirmed further by another and then many other participants. Then they expressed enthusiasm for another dialogue where together they could explore possibilities of helping themselves.
Dialogues With The Upland Barangays

Verifying the FSA results

The results of the FSA on goat-coconut integration were not confirmed in the dialogue with the upland barangays. They observed that most people in the upland seemed to have been discouraged in raising animals. The issue was difficult to be named, but after sometime of discussion in the small groups, it was at last spoken - the fear of the insurgents. The animals are like a ‘charm’ for the insurgents to come. So why bother to risk their life?

They mutually affirmed each other that it was better to plant more crops on their coconut lands. This affirmation was recapitulated when we ended the dialogue with a song from one farmer, “...do not depend on the pension ... rely on yourself. Plant maize, sweet potatoes, bananas and yam. So, you won’t go hungry”.

This amused the participants and made them more conscious of what the participants from barangay Marangi said, “So that we can improve our life situation and contribute to our community development, we should stand on our feet. Let’s start from what we can do”.

Reflection With The Core Group

Based on the dialogues concerning the meaning of the Farming Systems Analysis we realized that the issue was not technological. Basically, the issue was the need for capital for even a micro-enterprise, e.g. a backyard animal production. Moreover, the fear of the insurgents as an issue which was not yet overcome at that time put a halt in any desire for improving animal production particularly in the upland and in the coastal barangays.

So we, the core group, tried to see what the FSA meant for us in relation to the general direction of our research. We realized two important meanings resulting from the Farming Systems Analysis:
First, it was very valuable information which could give insights to the local government regarding its community development program. As the researchers we could inform the local government of our findings and suggest that they be considered for some development plans.

Secondly, the FSA could serve as a sound basis for giving top priority to farmers in terms of development. It could give an idea for designing an intervention strategy appropriate to the present situation.

At that point in time, there was a growing tension among the core group caused by a compelling desire for action. So we had to address this tension and came to an agreement that we would diligently explore for that “little step” that would help to improve our situation and which could be initiated or facilitated by ourselves. Almost in a “chorus” they said, “We expect this research to have a good impact to our community. This should be different from other research that ends up in recommending what to do, but leave to others its implementation”. This prompted us to move to the next stage.

**STAGE 2- DESIGNING A TECHNICAL INTERVENTION STRATEGY**

At this stage, the core group came up with the design of a technical intervention strategy which was designed to improve the farming systems of the community which would consequently improve the lives of the farmers (Figure 6.3).
Figure 6.3. Possible technical intervention strategy designed by the core group.

This model on technical intervention (Figure 6.3) was based on the following logic:

- The technology related to rice/corn and animal production was already developed and what was needed was information dissemination. We thought a model farm (articulated in Figure 6.4) would serve as a show window of the technical feasibility of a crop-livestock integrated agribusiness. It was assumed that integrating animal production into the routine agricultural activities of the farmers could improve their economic well-being.

- The model suggested that the core group in close linkage with the Local Government would take the initiatives for information dissemination and finding some farmer-cooperators to try on farm the crop-livestock integrated agribusiness (Figure 6.4). It was also decided that the livestock production would focus on pigs after a thorough deliberation about other potential animal species (e.g. goats and native chicken) and the present farming conditions. The model farm was potentially feasible in the lowlands where the fear of insurgents was less and where rice farming was widely practiced.
We thought of putting the model farm in a barangay that was most willing to have it. But more than this issue of where to establish the model farm was the issue of whether it would be run by individual farmers or by a cooperative.

So we deliberated on the advantages and disadvantages of individual and cooperative approach for technical intervention. (Table 6.2).

The deliberation was interrupted when Dhadz asked me if my timetable could afford a longer time frame for Scheme A for we knew organizing a cooperative could take a long time. With about five months left, we tentatively decided to have this intervention strategy be implemented through individuals, but with the core group’s facilitation. So we decided to make a technical design (Figure 6.4) which could be done by individual farmers or in collaboration with other farmers, but would not require organizing a cooperative.
Table 6.2. Comparison between cooperative and individual approach for technical intervention.

<table>
<thead>
<tr>
<th>Scheme A: VIA COOPERATIVES</th>
<th>Scheme B: VIA INDIVIDUALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADVANTAGES:</strong></td>
<td><strong>ADVANTAGES:</strong></td>
</tr>
<tr>
<td>1. It fosters closer relationship among members in the community.</td>
<td>1. easier to start with.</td>
</tr>
<tr>
<td>2. easy to build up capital</td>
<td>2. Its success is less dependent on leadership and organizational management.</td>
</tr>
<tr>
<td>3. sustainable because it is institutionalized</td>
<td>3. Decision making is easy.</td>
</tr>
<tr>
<td>4. monitoring is easy</td>
<td></td>
</tr>
<tr>
<td>5. with possible government support.</td>
<td></td>
</tr>
<tr>
<td><strong>DISADVANTAGES:</strong></td>
<td><strong>DISADVANTAGES:</strong></td>
</tr>
<tr>
<td>- slow process and time consuming.</td>
<td>■ can promote individualism.</td>
</tr>
<tr>
<td></td>
<td>■</td>
</tr>
</tbody>
</table>

At this point I realized how our choices of options were also limited by the time we could give for their fulfillment. Later in Chapter 8, I will also discuss the idea of "emergent outcomes" which was a product of many interacting factors including time. The success of our research in having been able to organize a cooperative in later part of the research (Chapter 7) was greatly influenced by a one year extension of my scholarship.

While the design for technical intervention was based on our understanding of the farming systems and the socio-economic situation of our community, its desirability and feasibility had to be validated by the prospective beneficiaries. So we moved on to the next stage of our inquiry - sensing the desirability and feasibility of our design for technical intervention.
STAGE 3 - FEASIBILITY AND DESIRABILITY OF THE TECHNICAL INTERVENTION STRATEGY

One feature of constructivism (Chapter 3) is the participation of various stakeholders in the deliberation and negotiation of options to be undertaken. After conceptualizing the technical intervention design, it was decided by the core group to evaluate its desirability and feasibility by two sectors:

1) Focus Group as used in this text refers to a specific-interest group, in this case, the pig raisers since the design was based on crop-livestock integration with emphasis on pig production (For other definition of focus group, see Fisher, 1991; Folch-Lyon and Trost, 1981; and Stewart and Shamdasani, 1990).

2) Farmers Group who are composed of lowland rice farmers and upland coconut farmers. This was the group that regularly participated in the research activities.

Focus Group Meeting

With our passion for action, we decided to hold a focus group meeting (Stewart and Shamdasani, 1990) focusing on “pig production integrated agribusiness”. Our concern or research question was to see the feasibility and desirability of our intervention strategy design (Figure 6.4). It was our hope that we would come up with an action part of the research, but always guided by that search for the “leverage” (Senge, 1992) or “generative theme” (Hope et al., 1984), the pursuit where people are most interested, enthusiastic and energetic.

We sent invitations to about 25 pig raisers in our community, but only 9 turned up. This was within the usual size of a focus group of 8 to 12 individuals (Stewart and Shamdasani, 1990; Fisher, 1991; Folch-Lyon and Trost, 1981). The core group, however, seemed to feel disappointed at the quite low response to our invitation. Nevertheless, we proceeded.
One of us presented the design and its concepts (Figure 6.4). “If we shall have a piggery farm, our neighboring farms will benefit from the natural fertilizers from its waste and overflow of a biogas. It will save some money which otherwise should be used for fertilizers. To avoid complaints from our neighbours and prevent pollution, we can have a biogas system. From this we can generate methane gas which we can use for cooking and lighting facilities. If we have extra biogas production, we can invest in other related businesses like a bakery or a kitchennette which could save much of its expense for fuel. From rice, corn and coconut farming we can have a supply of some feed ingredients for a barangay feedmill which likewise can boost the animal production in our community. Through this integrated agri-business we can increase our farm productivity, our income and consequently improve our situation.”

After the presentation there was a feedback that it was a brilliant design which considered the situation of our community. But one thing it missed - how to have the starting capital.

It was not a very fulfilling ending. We stumbled again on financial issue, but I thanked them all for coming and announced the forthcoming debate (next phase). At least there was still something we could look forward to and see what would happen, what would emerge. Would there be a “surprise”? After this experience with the focus group, the core group decided to present the idea of technical intervention once more to the group of farmers at large to see another perspective.

Farmers Meeting

As discussed earlier, the farmers group was composed of lowland rice farmers and upland coconut farmers. This was the group that regularly participated in the research activities. The core group decided to hold a dialogue with this group to re-consider the
idea of the technical intervention, but our design (Figure 6.4) was not presented upfront. Instead, we presented the important findings of the Farming Systems Analysis (discussed in Stage 1) and the core group facilitated a discussion of what the FSA meant to them.

**Session 1. Highlights of the Farming Systems Analysis**

This session was less structured than usual in the sense that we (the core group) just organized the starter session by presenting the highlights of the Farming Systems Analysis (FSA). What proceeded was guided by the responses and dynamics of the farmer-participants.

After the presentation of the highlights of the FSA, the participants expressed a strong affirmation of some data such as: (1) The small size of the farm land they till. Expectedly, too, was (2) the low production. Since farming was the main source of income for a majority of farmers, the low production also would result in (3) low household income and poverty.

At this point, the farmers strongly argued that their poverty was not really a technological issue. They said the level of production was basically a function of the farm area and they knew all of them had barely one hectare of rice land. Production from a hectare of rice land would not suffice even for the barest necessities in life. This led us to an analysis of poverty.

**Session 2. Analysis of Poverty**

This session was facilitated by Layo during which the farmers mapped out the farming situation and the vicious cycle of poverty (Figure 6.5). It was a disheartening session especially when one farmer stood up and sighed, “This is our reality. Por que
tios pobre, porque pobre tios.” This can be translated as, “I am indigent because I am poor, I am poor because I am indigent.”

Figure 6.5. The vicious cycle of poverty (with insights from the Department of Agriculture. Layo, the facilitator of this session, is an agricultural technologist of the said Department).

With a feeling of being hooked in this vicious cycle of poverty, I facilitated a round-table discussion, a process where every participant was allowed to speak on how they felt about this cycle and how we could possibly break off from its hold.

Session 3. Round-table Discussion:

“How to Break the Cycle of Poverty?”

In this session, the farmers spoke of a single theme, a single strategy to overcome the vicious cycle of poverty. As Kagawad Eligyo said, “The ultimate hope of the poor is a cooperative.” Elmer, a youth leader of Barangay Grijalvo affirmed the
imperative of a cooperative when he said, "In a cooperative, our struggle to break off from this cycle of poverty would be lighter."

These insights were further enriched when Layo presented what he called "The essential triangle of agriculture" (Figure 6.6).

Figure 6.6. The 'essential triangle' in agriculture: a cooperative approach.

He spoke with the same trust in cooperative development, "We all hope in cooperative development. We believe that it is a good support for small farmers (like you and me) considering these three important aspects of farming (referring to Figure 6.6):

"First, is the need for capital outlay. Most of us borrow from private money lenders. Much of our production is wasted paying off our loans and its exorbitant interest, often
from 150% to as high as 300% per annum. If we organize a savings and credit cooperative, then we can avail of some loans at a lower interest rates of 12% per annum. This will allow us to save our production to other basic needs;

Second, our need for farm inputs such as fertilizers and chemicals. We usually buy these farm inputs at very high prices. If we organize agricultural supply cooperative then we can sell them to the members relatively cheaper. This would reduce our cost of production and would increase our net gains.

Third, is the need for good marketing strategy. In our previous dialogues and workshops, we have discussed that we are caught powerless amidst the extremely low prices of farm produce during harvest time. We urgently need cash to pay off our loans which are due at harvest time plus our other needs. But there’s no where to market the produce other than the middlemen, who usually have loaned us some money beforehand. So despite the very low prices we are forced to sell our farm produce. Then if we organize a marketing cooperative, our marketing can be centralized for a better marketing prospect. Please note, too, that a cooperative can operate on a multi-purpose activites. One cooperative, but operating on savings and credit, agricultural supplies and marketing.”

The session concluded with an expression of hope on developing a cooperative. It was considered an alternative to increase farm production by reducing losses through private money lenders and middlemen. This occasioned me to invite them to the multi-sectoral workshop designed to sense the leverage for change. This will be discussed in the next section.

**PHASE 3 - SENSING THE LEVERAGE FOR CHANGE**

In Phase 1, we reached the point of defining the desired change, that is, development of a cooperative. Our research however was interrupted by my return to the
University. When I returned again to the community it was the core group’s intent to reclaim the generative theme of developing a cooperative. This intent placed the core group in a dilemma of how to re-start the group process.

With such a dilemma and prompted by a desire for action and a technical interest, the core group considered developing a technical intervention strategy. We thought it was a good alternative as it would also work through collaboration in the discussion of technical issues, but would require individual implementation. But as discussed in Phase 2, our quest for desirable and feasible changes through technical intervention strategy was constrained by the very conditions of the poor. Financing was a major problem. This realization led us to to reclaim the enthusiasm for developing cooperative once stirred in the first phase which was consistently recurring.

**In Search Of Leverage For Change**

Leverage is a systems principle. It is a way of identifying actions and changes that can lead to significant, enduring improvements. Often, leverage follows the principle of economy of means, where the best results come not from large-scale efforts, but from small well-focused actions (Senge, 1992). Phase 3 was a serious effort to sense the leverage for change for improving the situation in our community. We also hoped that definition of changes would be followed by its implementation.

We realized that ours was a different context, where there were no power holders who could implement an agreed change such as those in a corporate context. Notwithstanding the absence of said power, we persisted in that search for leverage believing that if the defined change truly reflected the interests of the participants, it would generate enthusiasm and power for its implementation.

Guided by the Soft Systems Methodology, we attempted to make a conceptual model that would be more evocative of defining changes to which the participants would be committed. So the core group had a mini-workshop on conceptual modeling
Mini-Workshop on Conceptual Modeling

Informed by the same rich picture (discussed in chapter 5) and more enriched by our research experience, the core group constructed another conceptual model (Figures 6.8 and 6.9) based on the following root definition:

A System for promoting the social and economic well-being of the people in our community through the development of cooperatives.

A discussion about the CATWOE elements of the root definition occurred in the core group. The discussion revolved around the issue of ownership and the actors of the system. The questions were, “Who has the power over the system?” and “Who will implement it?” Instead of being bogged down by these questions we opened the research to possible surprises, to some emergent outcomes. We reasoned that if there is leverage in organizing a cooperative, then there will be a group who would own the process of cooperative development. It was enough for the core group to agree on continued facilitation for sensing the leverage and possibly the initial implementation of change.

After constructing a conceptual model (Figure 6.7 and Figure 6.8) we discussed some of the approaches to its presentation (Checkland, 1981:178-179). Having been impressed by the beauty of “Strategic Questioning” by Peavey (1992), I personally endorsed the use of conceptual model as a base for ordered questioning in the problem situation. Since the Soft Systems Methodology does not give a guide for how to do the questioning, I took it an opportunity to try the “strategic questioning”.

218
Figure 6.7 The Conceptual Model on cooperative development (with a low level of resolution) presented during the Second "Debate and Feasible Changes", December 5, 1992.
Figure 6.8 The Conceptual Model on cooperative development (with a high level of resolution) presented during the “Debate on Feasible and Desirable Changes”, December 5, 1992.
The experience in our focus group meeting where our enthusiasm over our design did not create much social energy, we interpreted as a “call” to listen, to sense what matters to our people.

What appealed to me most about strategic questioning was its intent for attentive listening. It is a questioning that draws out not only information, possible transformation in the respondents and the context. It is also a political process as an attachment to one’s personal vision gives way to a common vision (Peavey, 1992). The way of “strategic questioning” is not to manipulate nor to lead, but to allow the questionee to bring out a new synthesis of old information or to find new options, new possibilities. Drawing these out from within creates the “energy” for a collective action. With this promise of a new way of listening, I constructed the questions based on our conceptual models (Appendix 6.1) informed by Peavey (1992) on “Strategic Questioning for Personal and Social Change.”

At that point, we felt confident that the conceptual models we constructed would be an effective device to evoke a debate on “feasible and desirable change. So we organized another multi-sectoral workshop for the purpose of defining the desirable change to which the participants would be committed to make it feasible.

Multi-sectoral Workshop: Debate on Feasible and Desirable Change

Despite the nationwide election of the Kabataang Barangay, (Youth Council) a day before this multi-sectoral workshop, there were many participants who turned up. The activity of the day started with the introduction of the participants and some action songs. There was an expression of a warm welcome to Sri, my supervisor who attended this workshop. He talked about his background, to which our people could very well identify and also explained the philosophy of education and research which was behind this research.
Session 1. A Looking Back

Session 1 was a review of our research journey. There was a long discussion of the situation of the community, now with a new perspective. The participants now recognized that many of the problems in their families and in our community were the consequence of personal responsibilities, social structures and natural calamities.

One comment by a participant summarized what we had done until that time when he said, “We talked about the existing problems in our community. We shared ideas and opinions of how we can develop and how our problems can be solved by our own initiatives, our talents and our capabilities.” (emphasis added).

Session 2. Conceptualization of the Transformation Process

It was hoped that this session would unfold the transformation process that could achieve situation improvement. While the core group prepared the conceptual model (with its low resolution, Figure 6.7), we allowed the participants a chance to come up with the transformation process in order to make them feel ownership and hopefully would hopefully unleash social energies for its achievement.

The participants of this multi-sectoral workshop were divided into four groups. Each group was facilitated by a core group member who guided the discussion on the themes corresponding to the conceptual model. The purpose was to draw out their conceived transformation process towards an improvement of the situation in the community. Our guide question was, “We are aware of the problems in our community, we are also aware of our aspirations to improve its situation, how do you think we can move from this ... problematic situation to an improved situation?”

The group output on the transformation process is shown in Appendix 6.2. This conceptualized transformation process enriched the conceptual model on cooperative development (Figure 6.8) in its higher resolution.
Session 3. Comparing the Model and the Reality

Session 3 operated on the assumption that we all desired to improve the situation of our community. In a review of what we dreamed our community to be, I presented a summary of what community development means to them (Appendix 5.6.1); a summary of the dreams of our people based on the informal interview (Figure 5.5); and the mind-map of the people's visions and plans (Figure 5.6). They expressed they had a common desire to improve the situation in our community”.

And I underscored that common desire, illustrated in Figure 6.9.

Figure 6.9. Our common desire of improving the situation of the community (expressed through various stages of our inquiry).

At that point, I thought it was time to present the conceptual model (Figure 6.7 and 6.9) which we had explored earlier. To preserve the spontaneity of the comparison of the conceptual model with the reality (as we perceived it), the sequence of the transformation process was only in my mind (as a facilitator). The conceptual model we had constructed was not presented as such; only its concepts were elicited through "strategic questioning".
What followed was a series of questions and responses which later became a free-flowing discussion with the emergence of some important themes as follows:

(1) *On Awareness*. They had realized that development projects in the barangays are patches of isolated effort, that is, without discernible relevance to the most pressing needs of the people. Most projects concentrate on infrastructures, e.g. 100 meters of concrete road which could not even cover the whole barangay center. There was a unanimous perception that this was so because of the 10% Standard Operational Procedure (S.O.P), a “legal corruption” as it is said, where 10% of the cost of the project goes to the administrator in some mutually concealing procedure. It is only in the infrastructures that this can operate. We believed that this could be the cause of the compulsive desire for infrastructures, overlooking other development priorities like livelihood projects for the people.

(2) *On Being ‘Small People’: An Issue of Empowerment*.

In our dialect we have a word “kasaraditan” which comes from a root word “sadi” or small. It is a collective noun referring the poor, the powerless. This word seems to have become a poetic word used by politicians when they speak of a deep concern for the “kasaraditan”. I hoped that discussion of this word would trigger a discussion on some issues of empowering the poor.

So I continued with my questioning about its meaning to them and how they felt about it. They described the miserable situation of the “kasaraditan”. As they put it in a humorous language, “A pauper because he is poor; poor because he is a pauper.” This expression made them laugh, but gave the group a deeper realization of the plight of the poor. “And who are these poor?” Sad to say, they all recognized, “all of us” (the participants). More sad was to realize that not much was being done to help the poor. If there were patches of effort they were not sustained. This brought out another issue
(3) Sustaining Initiatives of Development Efforts

There was a general awareness of some development efforts which during the past two decades and that these generally don’t survive to serve the needs of the poor. They mentioned a nationwide livelihood program for development that was called *Kalusang Kabuhayan at Kaunlaran* (KKK) during the dictatorial regime in the 1980s which now they translate as *Kanya-Kanyak Kurakot* (KKK). This can be translated as “each one takes part in the corruption”, which reflects the reality of how many of the funded projects collapsed because, as they put it, “There was rampant corruption in our system”.

Documenting this conversation would not give enough idea of how the exchange of ideas happened, the feelings that were evoked, and the enthusiasm that was generated. Certainly, there was a discernible passion for action, but there was yet to emerge a cohesive group that would own the responsibility for taking the next steps.

*Session 4. Defining Changes and Planning For Action*

The desired change was an improvement in the quality of life of the people (especially the poor). So we tried to come up with plans which would lead to this desired change:

- Greater participation in barangay assemblies. This could be done by individuals in their respective barangays in order to influence direction and goals of development projects besides providing a check and balance function.
- Empowering the poor by organizing cooperatives. They believed that through cooperatives they would be able to engage in some livelihood activities.
- Sustaining initiatives through honest leadership. This would require value formation. They associate the sustainability of these initiatives with values of honesty, love and service.
Session 5: Deciding to Act

Even though it was already late in the afternoon the participants were still engrossed with our activities. They seemed to be a waiting for a confirmation that the group that was yet to be, would take the steps and move forward.

After some discussion the participants agreed to start a cooperative. It was expected that the core group would facilitate the process.

Reflection After Defining Changes

The challenge of facilitation for implementing changes (the last stage of SSM) remained in the care of the core group. In a loving response to this challenge of care, the core group decided to continue journeying with our people in the quest for improvement of our situation. The organization of the Cooperative will be discussed in the next Chapter. It will also be shown that the whole process of implementing changes (as with other stages) has been participative, the hallmark of Participatory Systemic Action Research.
and our journey continues, following the track that looks familiar and yet strange, that turns and twists and brings us surprises but just trusting the process ... as we continue ... revisiting our vision and implementing change.

**INTRODUCTION**

In Chapter 6, I discussed our exploration of desirable and feasible changes from different perspectives. There, it was revealed that the need of the people was not a technological concern. They needed financial assistance in their agricultural micro-enterprises. From their perspective, the situation could be improved only by a cooperative endeavour. The desire for organizing a cooperative was further affirmed at that stage. The challenge was how to implement the development of the cooperative.

It will be noted that this is the final stage of a Soft Systems Methodology. In our experience of working in a rural community context, this stage was a long process of allowing a cohesive group to emerge that would gradually own the process of change.
Chapter 7 will unfold the story of how we struggled through the legal structures of organizing a cooperative and breaking through the feelings of inadequacy and lack of confidence of the farmer participants. As they gradually reclaimed their self-confidence and learned the procedures of organizing a cooperative through the training provided, we were able to organize a Consumers Cooperative. Initially, it catered to the basic needs of the people, helping the poor have “both ends meet”. Later, this Consumers Cooperative became a Multi-purpose Cooperative, envisioned to respond to various needs. This Multipurpose Cooperative became an organization of farmers and “professionals” (as the farmers call the non-farmers).

This Third Phase of the research corresponds to the stage of ‘Implementing Changes’ based on the Soft Systems Methodology (Figure 5.1). Despite the clarity of the desired change, that was a cooperative development which was to be enacted by developing a cooperative, its implementation continued to be a series of “persuasion and debate” (Naughton, 1984).

To avoid “freezing” the social energy that was rekindled in Phase 2, I stayed at the University for my usual regular report to the postgraduate community only for two months so I could return quickly to our community.

According to significant events in the process of implementing changes, Phase 3 can be seen to consist of three parts:

Part 1 - The Informal Organization of the Consumers Cooperative. This was spearheaded by the core group in response to the defined changes and plan of actions;

Part 2 - Developing the Confidence and Team Building. Despite great enthusiasm and an ardent desire to organize a cooperative, the farmers seemed to step back from the informal organization of the cooperative. The feeling of lack of confidence needed to be overcome. Sensitive to this issue, we had a series of dialogues with the farmers in an attentive listening. As was desired by the farmers, we also had a Christian
Leadership Training. This leadership training was hoped to build their self-confidence to be able to share the leadership responsibility and develop a cohesive group;

Part 3 - Formal Organizing of the Multipurpose cooperative. Inspired by our vision to build a Christian community through cooperatives, we formally organized a Multi-purpose Cooperative which had a multi-sectoral membership.

Renewal of Commitment of the Core Group

It was a celebration of the Holy Week when I arrived back in San Fernando. All the core group members were involved in the parish “Santos Ejercicios” or Spiritual Exercises of the community in preparation for the Easter celebration. This is a religious activity with wide participation of the people from all barangays; a moment when our hope for a new life is rekindled.

I took this chance to go on a spiritual retreat. On my retreat I realized that my research work was finding an echo deep in my heart and renewed my own sense of vision and enthusiasm for my research work.

Then I had to meet the core group. Working together made us feel stronger as our enthusiasm was contagious to each other. I wondered if they would still have the same commitment and generosity of time. Some of the members had new family responsibilities, so I wrote a letter designed to help us re-engage with one another and the research process.

The first of May (1993) we had the first core group meeting for this third phase. I shared the story of the presentation of our research at Hawkesbury. It was a special moment of feeling our connectedness. This was not only my ‘story’ but our ‘story’. There was a new meaning in the way we saw the research emerging. We felt it was not by an official call of duty that we worked together. It was our personal vision connecting with the vision of others that bound us together. The warmth of our
friendship was still there, inspiring us to journey with our people. All the core group members pledged the same support and commitment.

**PART 1- INFORMAL ORGANIZING OF THE COOPERATIVE**

With cooperative development as the leverage (as evident in Chapter 6), the enthusiasm of the people would unleash the social energies for its creation.

A community worker must identify and develop “generative themes”- issues which are so important to the community that they will generate enough energy to break through apathy and stimulate initiative in the members. These are topics, ideas or phrases or subjects strongly and frequently talked about with emotion by community members. Emotion is linked with motivation to act (Hope et al., 1984:35).

After the “debate on feasible changes” there was a growing energy to get organized. There was an increasing passion, “Let us get organized and be able to help one another and participate in the improvement of our community.” It was from this passion for improvement of our community that the core group got the courage to initiate organizing a Consumers Cooperative. It was an unfamiliar experience for us all to organize a cooperative without a government or non-government organization (NGO) community worker. So despite great enthusiasm, taking responsibility for leadership was not easy for the farmers or the facilitators.

In Part 1 - the two main events in the informal organization of the Cooperative will be discussed: (1) The Beginning of the Consumers Cooperative; and (2) the Pre-membership Education Program (PMEP) which was required by the Cooperative Code of the Philippines for registration of a Cooperative.
The Beginning Of The Consumers Cooperative

None of the core group members had previous experience in organizing a cooperative. These are usually organized by government workers in the Department of Agriculture, Department of Trade and Industry or Department of Social Welfare. Nevertheless, enthused by the idea the core group put in some money and together with a few participants of our workshops started, operating a Consumers Cooperative.

The core group members actually began to organize the Consumers Cooperative while I was still at Hawkesbury. It was like a "try-out" and the "little step" to help our people have their meagre family finances "meet at both ends" by providing relatively cheaper goods. Underlying this operation was a great desire to build up some capital that later could be loaned to the poor farmers and non-farmers to save them from various practices of usury in money lending.

We named it the San Fernando Parish Consumers Cooperative, which in its later development was reviewed for its possible change of name. After vigorous discussion and dialogues, the name was sustained, for it stands not only for an economic pursuit, but also for the spiritual well-being of its members.

Pre-Membership Education Program (PMEP)

As a response to the desire of the community members to organize a cooperative, the core group initiated a Pre-Membership Education Program (PMEP) on Cooperatives. While the PMEP had an inherent value of education on matters of cooperatives, it was also a requirement by law (R.A. 6939, Cooperative Code of the Philippines). The members must undergo this program before a cooperative can be registered and assume a legal identity.

The PMEP was well-participated in by farmers, fishermen and professionals. The municipal mayor and two municipal kagawad (or councilmen) joined us during the first day of the seminar. We were also pleased to have with us a staff member from
the Department of Agriculture. The Department of Agriculture has a mandate to help farmers not only in the technology of agriculture, but in organizing farmers into cooperatives. Apparently, cooperative development is an acknowledged option for the poor by the poor themselves and the government as well. There was great enthusiasm over cooperative development. A desire to form a cooperative and be a member of it was expressed by the participants of this seminar.

The seminar-workshop was facilitated by Rose Llaneta, a manager of a big cooperative in Naga City and a friend of one of the core group members. The program proceeded with workshops and discussions of the following themes:

1) Principles of a cooperative;
2) Nature of a cooperative enterprise;
3) Duties and privileges of a member;
4) Some tips for beginner-cooperatives; and
5) Success and failure of many cooperatives in the Philippines, trying to learn from the experiences.

The seminar ended with a joy of ‘graduation’ as everyone received a certificate of attendance. Some of the participants enlisted membership to the Parish Consumers Cooperative, but none were from the farmers group.

So, the core group reflected on that circumstance. We believed that the farmers enthusiasm for a cooperative development was true and their interest in forming one and being a member of it, was truly sincere. What could be their constraints of joining in? It took several meetings more before we understood that organizing a cooperative is not that simple. Some unspoken feelings can complicate the matter as was revealed in our series of meetings with the farmers which will be discussed in Part 2.
PART 2 - DEVELOPING CONFIDENCE AND TEAM BUILDING

We saw in the previous section, that the farmers did not join in the initial formation of the Consumers Cooperative, but they continued to participate in the sessions. Enthusiasm built and receded as before and the exploration of issues repeated themselves. The series of dialogues gradually helped the farmers group gain in confidence and exposed difficulties that originally kept the farmers from participating in the formation of the consumers cooperative.

In Part 2- the development of confidence and team building was more an emergent process than a pre-designed one. It came about through our reflection on the dissonance of the farmers desire for forming a cooperative and then not participating in its formation. So we decided to sense (in its deeper meaning in our dialect "maghimate", the alertness of all senses for attentive listening) their true desire. We agreed with Peavey et al., (1986) that connectedness is a political principle. As she wrote, “If we aren’t connected to the people we think we are fighting for, there’s an emptiness, a coldness at the center.” So we decided to hold a dialogue with the farmers group, which turned into a series of dialogues. This series of dialogues, in turn, became a process of developing self-confidence and team building.

At that stage, we were not any more dealing with a random sample, nor a group of people, nor a crowd, nor a multitude, but with specific persons speaking of their sentiments, their ardent desires and their lack of confidence. So though these issues were tackled in a group, a personal experience was being unfolded. To portray that personalness of experience in the unfolding of these stories, the names of people will be mentioned more outstandingly in this chapter than in the previous two. This was done with full consent of the named persons and with their joy that their stories would be told.
Dialogue with the Farmers:

An Attentive Listening

May 22, 1993

There were about 24 regular participants in this dialogue of whom 9 were newcomers. We were beginning to realize that every time we met there were new participants. Although some regular participants were emerging, the presence of newcomers forced repetition of some issues that had already been tackled. Moreover, this delayed moving onward, but we believed that such a “moulding interruption” was an integral part of the whole process.

Session 1: Listening with the Heart

We introduced this session with a “communication game” where a message was relayed by whispering through each member in the group in turn. Then the last person who receives the message is asked to say it aloud comparing it with the original message. This created much laughter, for the message did not match any more with the original message and the distortion sounded funny. This game made us realize the need to express clearly what we mean and likewise to listen attentively to understand the message of others.

We divided the participants into 4 small groups ensuring that the new participants were more or less fairly distributed. There was one core group member for each group. They facilitated the free-flowing expression of thoughts and feelings. We had prepared a guide question, “Recalling our visions and plans that we have had through our various dialogues, feel if this is still burning in our hearts. At this point of our action research, how does each one feel? What do we really desire? For the new participants, what do you expect?”

From Group 1, Kagawad Morato spoke with a serious expression on his face. He used to make jokes, but that time he seemed to be thinking deeply about what he would
say, “We mentioned this already in the past dialogues. Our main problem is having a very little earnings. We could not save capital for any transaction we want. Our last hope is by having a cooperative. A cooperative that helps us in our livelihood.” Then he sat down with quite a sad look, but with an expression of dignity. The dignity of a poor man, who despite being faced with a “limit-situation”, still hopes.

“Let’s help one another through a cooperative.” That’s the ‘cry’ and the ‘song’ of the poor. It is a reclaiming of the bayanihan spirit (a sense of cooperation and mutual support) that once lived not only in the individuals but also in our society. Truly, the spirit of bayanihan still lives in our hearts, in our people of today, but many things have changed including the lifestyle. We are moving towards “individual families”, but the cry of the poor is still there. We need one another.

As the poor struggle through the legal structures of the society, where the benefits due to them are channelled through organized cooperatives, their faith in cooperatives becomes not only as an option, but an imperative.

Not only is the cooperative a source of comfort for realizing that one is not alone in difficult times, but also it provides the legal strength for the poor to get access to social services and opportunities. Moreover, we Filipinos also believe that the more people gather the happier we can be, that togetherness is the strength of the poor.

Group 2, underscored the need for financial assistance, but they did not speak about it directly. There was just an insinuation. They knew that the research core group could not offer any financial help, but they had a hope that some insights would crop up through our frequent interactions.

Then Group 3 emphasised the urgency to explore how to make organizing the cooperative possible. They raised the need for guidance and in organizing a cooperative. There are some requirements in registering a cooperative which we found much later. Lots of paper work! A feasibility study, constitution and by-laws ... how can the farmers who are not keen on paper work ever have the courage to try? They
needed guidance, they needed support. They suggested the development of local leadership to develop that capability to lead in order that they could be self-directing.

Session 2. Assessment of Resources

This session on Assessment of Resources was rather a sensitive activity; quite a delicate one. Manay Letty started the session saying, “A successful cooperative starts from its own capacity, its own resources. ‘Let us not ask what others can do for us, but rather ask what we can do for others.’ In this session we shall try to see what resources we have in order to give us a feeling that despite having little, at least we have.” It was an individual activity - writing down the list of resources one has.

This session triggered a strong reaction as it was introduced. Somebody mumbled, “Everybody knows that we are poor, what can we give?” Then Kagawad Labodit, a middle-aged woman attending for the first time stood up and in a seemingly confident tone spoke, “If Miss Callo has got something to share, let her share it with us. We all know she came from Australia, she must have something in her hand. Why doesn’t she share it?” Then she sat down with a thrifty smile, looking around as if needing an affirmation from the other participants.

It was truly provoking and it stirred my blood. But thank God, I maintained my composure. There was a strong implication in her words that I must have some funds which were supposed to be given to them. Why should I be holding it for myself? Corruption... malversation of funds. Such a sickness of our society.

Our waiting for a cohesive group to emerge and the development of local leadership was interpreted as just holding the money tight.

I felt sad.

The core group members understood. There was no word. They understood and they shared my pain.

There was a brief silence
Then Barangay Captain Pardinas stood up and explained, "I know, and especially the regular participants that this is a PhD research. It was her desire (referring to me) that her research be more meaningful and so she did it here. There is no such fund for us that she holds back."

Then Kagawad Labodit stood up again (not saying an apology) and tried to modify her impression. She said "On my part, I was just trying to say that, if there is some money for us, then she should give it away. If there is none, then there is none."

At this point, I thought there was a need to explain once again, but quite briefly the nature of this research and my role as a facilitator for exploring possibilities. And I had to underscore the idea of self-help, "drinking from our own wells" (Gutierrez, 1988) and the funding of this research where there was no funding! It appeared an isolated case of doubt, but we had to address it anyhow.

Then Manay Letty proceeded with the workshop, distributing writing paper and a pencil to the participants. "Please write down the resources that you have." Most participants took a little while before they started to scribble.

While they were writing, I remembered how we decided to have this activity on assessment of resources. We had a deliberation in the core group reflecting that most cooperatives fail because there is money. The money comes from the outside and it comes quite prematurely. The people enjoy some loans without a previous investment of their own. The members then do not care what happens to the cooperative, if it dies, the better. There were loans that were unpaid because the cooperative was already disbanded and the loan was in the name of the cooperative. Then there is no more cooperative to be pursued or sued for repayment. We were thinking that if the members could invest something, even just a little, they would feel they had invested something valuable and they would look after it and the organization.

This session created a surprise.
The poor also have something to share!

The list was - one pig ... a pigpen ... a carabao ... a coconut farm ... a cow ... a rice field ... a farming skill. “After all, we are not having nothing,” some exclaimed as they stood up and stretched their arms as if relaxing their muscles for new energy.

Ate Chie sensed that we needed a break and so we sang a three-round song, “All things shall perish from under the sky. Music alone shall live, music alone shall live, never shall die.”

The dialogue concluded with a decision to create an ad-hoc (or transient) committee composed of farmer-representatives from different areas. It was envisioned to dialogue more intensively with the core group in continuing discernment of our direction and strategizing plans.

**Dialogues with the Ad-Hoc Committee:**

**Discerning the Need for a Leadership Training**

This dialogue with the ad-hoc committee happened in two series of meetings (May 30 and June 19, 1993) which were each held in my parents’ house. Holding them in our house was a different experience as it allowed a more ‘personal touch’ to the occasions. Besides, two of the ad-hoc members who came from the uplands, knew our family and had witnessed our poverty and how we have struggled in life. This, later turned out to be something that we had in common.

The first meeting was very inspiring for both the core group and the ad-hoc committee. We all felt a growing sense of solidarity and the energy built up in our group.

The need for a leadership training was raised again. After a lively discussion we agreed that leadership should be developed within the emerging farmers group. We
also decided that this should be a type of leadership where there is value formation. At this point, we decided to hold a Christian Leadership Training (CLT).

**Christian Leadership Training**

**and Building Our Vision**

This leadership training was a response to the expressed need of the farmers group, to increase their confidence in social interactions and taking initiatives. This training was well-participated in by 27 farmers from different barangays. This is the group of farmers who continued to participate in the deliberation and implementation of developing the cooperative.

This training was facilitated by Abang and co-facilitated by the core group. Abang was from our community, a friend to us and known from times when we participated in San Fernando Catholic Youth League together. He was the current director of a Non-Government Organization that was involved in rural development. This training lasted for two days (Saturday and Sunday). The significant events of the workshop will be discussed in the next session.

**Preliminary Session**

The seminar started with self-introduction of participants and sharing of their expectations from the training. Each of the 27 participants stood up and spoke. One of them, Manoy Mancio did not say plainly his expectation. He shared a story instead:

There were three friends, Juanito, Jacinto and Honorio. One day they decided to go together to gather some firewood. They were happy helping each other. As they were going home, Honorio got a beautiful idea, “Friends, how about cooking together? It will save some firewood and utensils to wash?” “That’s a good idea,” the other two exclaimed. “What do you like to cook?” “I like *linagaw*,” said Honorio. “I like *linagaw*,” said Juanito. “And I like *caldo*,” said Jacinto. Each one cooking a different dish, they realized. So they dropped off the idea of cooking together. At mealtime, each one was curious of what the other has cooked. To their surprise, it was the same thing: a rice porridge!
He did not articulate further. But the message was clear. He wanted to explore how the group could work together. This also pointed out the need for breaking barriers to communication in order to come up with a common vision.

There was a long list of different expectations from this training, but the participants were able to agree on the following:

1) To feel united with one another;
2) To gain a deeper understanding of each other to promote good relationships;
3) To clarify our vision as a group;
4) To be able to organize our (farmers) group into a cooperative;
5) To work together in the agreed direction.

Session 1. On Assumptions and Learning

The participants were divided into small groups and were given a problem (which was the same for all) and asked to find an answer. The problem:

There are three books on a bookshelf. All books have the same measurements as one-quarter inch cover and two inches of the content. These were eaten by the termites from the first page of the first book to the last page of the last book. How many inches of the books have been eaten by the termites?

All the groups were excited computing for the answer. Then they came back with different answers. The difference was caused by the different considerations as explained by each group. One group was enthusiastic to defend their answer that in reality, the termites do not eat the cover of the book while there are still softer part. They calculated the thickness of the content. Another group calculated by counting
the cover, assuming that termites can bore through the cover. And the last group surprised us with their answer. Their answer was based on the normal position of the books on a bookshelf, so they counted only the thickness of the second book plus the front cover of the first book and the back cover of the third book.

There was much fun in this activity and some insights emerged: (1) That we have different experiences which gives us different assumptions; (2) These assumptions can influence how we see things; (3) If the assumption is not articulated, as often is the case, we can overlook the need for further inquiry or its verification; (4) So we have to be open in our assumptions, have an exchange of experiences and ideas and be open for new learning; (5) We realized that as adult learners everybody knows something. Each one has lots of experiences from which we can learn from each other. So group learning can be richer.

Session 2. Developing Self-Confidence

The purpose of session two was to elicit the feeling of being a 'champion', that feeling of self-confidence in the members of the group. The reasoning was that whatever the qualities of the members so would be the quality of the group.

Let us recall our experiences in life, when we have done well, where we have excelled, great or small experiences that gave us that feeling that we have done great. Then each one will share their story to the small group.

That was the guide for our sharing. I joined in one group. As each one told his or her story of good achievements, there was an expression of joy on everyone’s face. It was
like a celebration of a victory won. Their stories were fascinating and must have given everyone the feeling, “I am a champion, too!”

As we gathered in the large group, we were still feeling delighted with ourselves. Abang then said, “Those who believe that he or she is a champion, a peak performer or a legend please stand.” It surprised us, no one stood. So we paused a little while. This gave us (the facilitators) an insight to have the next session on “The Power of Believing”.

**Session 3. The Power of Believing**

We introduced this session with a story of the power of believing, “Destiny In A Tossed Coin” (de Mello, 1982):

The great Japanese General Nabunaga decided to attack even though he had only one soldier to the enemy’s ten. He was sure he would win, but his soldiers were full of doubt.

On the way to battle they stopped at a Shinto shrine. After praying in the shrine Nabunaga came out and said, ‘I shall now toss a coin. If it is heads, we shall win. If tails, we shall lose. Destiny will now reveal her hand.’

He tossed the coin. It was heads. The soldiers were so eager to fight that they won the battle easily.

The next day an assistant said to Nabunaga, ‘No one can change the hand of Destiny.’ ‘Quite right,’ said Nabunaga showing him a doubled coin that was heads on both sides.

The Power of Prayer? The power of Destiny? Or the power of Faith that is convinced something is going to happen? (de Mello, 1982:94).

Where then, is our ‘luck’, our destiny? With a strong affirmation, the participants said, “It is in our hands ... in our efforts ... in our working together ... but always with a prayer.”
Then we had a discussion about the miracle of being born. We spoke of how one of a million sperm cells succeeded in fertilizing an egg that became each one of us. Of those many who were born, many died and here we are still alive surviving the threats of early death. We also spoke of how we had achieved small or big things that made us feel ‘I am good’, ‘I can do something good’, ‘I am a champion’.

The second time Abang asked that those who were champions to please stand one stood up, others followed, then everybody stood up! Hurray!!! Everybody is a champion! Or courage is contagious.

What is the test of a champion? He or she has the courage to stand, the courage to try. Another question was asked, “Are we ready now to dream, believing that we can fulfil it?” The response was a big enthusiasm as we proceeded with the next session.

Session 4. Visioning

Session four was an explicit response to an expectation of the participants. As a guide for the workshop we asked this question:

| Within 10 years what do you like THIS GROUP to be? What are the steps that you can do in the next 6 months? |

They came up with different ideas. With a vigorous exchange of perspectives a “vision” emerged, which is shown in Table 7.1. It was a vision that gave us a sense of mission, a ‘calling’ to which we had a commitment to respond, to act.

We also thought that it would be with Christian leadership that our vision would be fulfilled, so we articulated what, for us was a Christian Leader. The group thought a Christian leader:
• Values everyone, considers everyone important as chosen by God. Each one is unique, with different experiences in life, different stories. Though we are different we can feel the connections with others in their experiences in life.

• Is an instrument of kaginhawahan (which has a broad meaning of peace, prosperity, success and a good quality of life).

• Lifts up the spirit, works together for a common good. Honest. Sincere. Dedicated.

Table 7.1. A statement of our vision and mission (developed during the Christian Leadership Training).

<table>
<thead>
<tr>
<th>GOALS</th>
<th>MISSION</th>
<th>VISION</th>
</tr>
</thead>
<tbody>
<tr>
<td>* promote livelihood</td>
<td>* lead in organizing barangay cooperatives, help to strengthen them</td>
<td>* build a community where there is unity, mutual support and love</td>
</tr>
<tr>
<td>* foster good relations in family and community</td>
<td>* coordinate formation of union of cooperatives</td>
<td></td>
</tr>
<tr>
<td>* foster formation of a Eucharistic community where there is sharing of love and goods</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At the end of the training, the participants expressed their happiness as the workshop had given them a new knowledge of themselves, a discovery of a new energy, a new courage! There was a growing faith that the group now had the courage to pursue the vision.

**PART 3 - IMPLEMENTING CHANGE: FORMAL ORGANIZING OF THE COOPERATIVE**

It is discussed in the previous section how the need for building the sense of confidence and developing leadership ability of the farmers was tackled by a series of dialogues and the Christian Leadership Training. With a new sense of confidence, a
decision was reached to form a cooperative as one step of enacting the vision (Table 7.1). However, as will be unfolded in the succeeding sections, the issue of inferiority on the part of the farmers recurred. When the farmers sensed that there were other would-be members who were well educated and rich, the feeling of inadequacy disturbed the farmers another time. It was the feeling of inferiority that was motivating the farmers to organize an exclusive farmers cooperative. However, as the issue of inferiority was recognized and tackled, the formation of a cooperative that accommodated multi-sectoral membership was fulfilled. The informal Parish Consumers Cooperative grew into the Multi-purpose Cooperative strengthened by farmers participation and that of other sectors of the community.

The story of how we struggled through breaking that feeling of “inadequacy” and reaching the point of that courage to stand and pursue the vision shall be unfolded in this next section.

**Planning of Activities and the Issue of Inferiority**

After the Christian Leadership Training, the farmers group exhibited great enthusiasm in organizing a cooperative and assumed increasing leadership. The farmers group elected eight *ad hoc* (or temporary) officers who worked closely with the core group in the organizing of a cooperative.

We started the meeting with a prayer (as we usually do). Pito, the chairman of the ad-hoc committee presided and opened the meeting by presenting two concerns related to formally organizing a cooperative: (1) Planning the forthcoming Pre-membership Education Seminar; and (2) Drafting of the constitution and by-laws.

The planning was interrupted when Tay Fred raised the question, “Shall we not decide first whether we will organize a cooperative among ourselves, the farmers group, or we join the Parish Consumers Cooperative?” So Pito asked what was the pleasure of
the group. What followed then was a free-flowing dialogue, and the real issue was identified.

The farmers felt inferior to join the Parish Consumers Cooperative. They thought they were inadequate to interact with the professionals (members of the Parish Consumers Cooperative). The feeling that they were the poorest of the poor was quite strong. So they considered organizing a cooperative exclusive for farmers who belonged to the same class - the poor. All of the ad hoc officers shared the same sentiment until one of them recalled our common vision, (Table 7.1). “How can we build a community if the rich and the poor would have no point of interaction?” After more deliberation, they decided that the farmers group should merge with the Parish Consumers Cooperative instead of organizing a separate one. The idea of merging appealed to the ad hoc officers when it was seen as a “daop-palad” or union of hearts. Only then was the group was able to plan and share the tasks for the forthcoming Pre-Membership Education Seminar and planned for the drafting of the constitution. The meeting adjourned with a happy expression on their faces.

(Second) Pre-Membership Education Program

(August 14 and 15, 1993)

This workshop on the Pre-Membership Education Program (PMEP) was participated in by 38 prospective members of the Consumers Cooperative. Of this number, 20 were farmers; the rest were people from different sectors of the community.

It was fine Saturday morning. Most of the participants arrived on time. At 9:00 o’clock, there were already 33 participants. As usual, people chatted with each other before the program started. A short while later, the municipal mayor, the parish priest and the municipal agricultural officer arrived. I could sense a discomfort between the farmers group and the professionals and I was also feeling uncomfortable within
myself as none of the core group had yet arrived. The participants grew in numbers to 38. The participants were already seated, giving a signal that we must start. But I was still waiting for the core group. I was just wishing we could start soon and ease up the tension I could sense. This was a different group. There was an unspoken distinction between the farmers group and the professionals. With an awareness of the different dynamics in this group of participants, the different social atmosphere being created gave me an inspiration how to start the day. Very shortly the core group members arrived.

Introduction of Participants

I facilitated this session that is usually done by a core group member. We divided into pairs and began with dyadic conversation before the introduction. The guide question was, “If you die, how would you like people to remember you?” They were allowed a few minutes after which they came to the large group and introduced their pair.

We arranged the chairs in a circle and the pair introducing each other would come to the middle. This process seemed to tickle everybody especially as the one being introduced sits down and the speaker stands. Changing position created laughter especially when we had the first pair:

Fr. Jun (introducing Kagawad Labodit), “She is an active lady, in fact she is a barangay official. But I knew her as she looks after the burial of the dead.” This cracked so much laughter that the tension began to subside since the pair was a farmer and a professional who after all, could have a friendly interaction. Fr. Jun continued, “She likes to be remembered as she has sacrificed for her family and the barangay.” Then Kagawad Labodit introduced Fr. Jun saying, “He is kind and handsome ...” another burst of laughter as the participants knew that Kagawad Labodit was already a widow and Fr. Jun is a priest. So the mention of handsome appeared like a joke. In our
culture, a woman would be shy to express an appreciation of the physical appearance of a man, especially when she is a widow and he is a priest.

The laughter continued as another pair came forward - Norma and Nay Azon. Norma, instead of introducing her partner introduced herself, which made people laugh. Then they teased them that they must have been asleep when the instructions were given. Now with the atmosphere more casual, Norma continued, “I am a shopkeeper of the Parish Consumers Cooperative, serving even without pay.” This tickled everybody as it was like a spontaneous expose and without malice. (The Parish Consumers Cooperative had not paid her yet!) Then Nay Azon introduced herself, “I am a photographer both of the dead and the alive.” And we laughed and laughed until the last pair was introduced. Our laughter had broken the feeling of gap, of distance. The atmosphere had become more friendly, more casual. Then we were ready for the rest of the day already begun.

*The Opening Programme*

During the opening programme, the local government officials pledged support to the Parish Consumers Cooperative. Then the main speaker for the PMEP, Maria Menene Neonal (fondly called Bebot) was welcomed with great applause as she shared her connection and special affection for the community of San Fernando. She was involved with the Social Action group of the diocese which gave her a chance to work with the fisherfolk of San Fernando. She was at that time working with a Non-Government Organization involved in rural development.

She began by asking the participants their expectations from the seminar that were summarized as follows:

1) To know the requirements for registering a cooperative;

2) To know the requirements for membership in the cooperative;
3) To know the values of the members;
4) See the possibility of federating with other cooperatives;
5) Continue the plan of action; and
6) To know the obligations and benefits of a member.

The discussion proceeded considering these expectations plus some other topics that the speaker thought essential for membership education.

*Session 1: Explaining the Need for a Cooperative*

Bebot narrated a story of development in the Philippines. “Before, we were poor even until now, but our perspective has widened. Before, some people have resorted to armed struggle, or “kanya-kanya” (I mind my own). When the rich had their business corporations, we were left looking for options for the poor. Cooperative development was one option that was sighted.” She continued to explain that in a cooperative, the total human development is attended to by considering five aspects:

1) Economic Development - that takes care of the material needs of the members.
2) Social Development - that takes care of the relationships with others.
3) Political Development - that takes care of creating a system or some systems that could achieve what has been decided.
4) Cultural Development - that takes care of continuing education of the people.
5) Spiritual Development - that takes care of our deep connections with God, with nature, with others.

Then we tried to compare a corporation and a cooperative.
<table>
<thead>
<tr>
<th>A CORPORATION</th>
<th>A COOPERATIVE</th>
</tr>
</thead>
</table>
| Economic development is fast because:  
  - the primary consideration is profit;  
  - has more skilled management | Economic development is slow because  
  - the primary concern is people  
    (relationship with each other);  
  - to engage in business still needs  
    education about it. |

Why do we opt for a cooperative instead of a corporation? The participants already knew the answers as these had been recurrent in our dialogues. Besides its legal privilege of low-interest rates, one idea was brought out, “In a cooperative, we are equals. It is a one-man, one-vote regardless of how much ever the share one has. The ruling power rests with the General Assembly. The leaders just facilitate the transactions.”

Session 2: The Cooperative Principles

With information based on the Cooperative Code of the Philippines (Republic Act No. 6938), Bebot explained the cooperative principles (Appendix Table 7.1). As Bebot translated the cooperative principles, in a more understandable language, I was following her copy of the Code. It looks complicated to a “common man.” Although the Cooperative Code is published in two versions, English and Filipino, farmers do not bother teasing out the details. At a glance, the farmer would probably think it is such a complicated matter that they need the assistance of a professional.

Certainly, the spirit of cooperativism and its principles as they welled-up from the hearts of the poor (or those who needed each others help) could easily be understood by the simple, the ordinary, the common. However, finding ourselves in an age of legalism (when our activities are covered by law), the literacy of law becomes an
imperative for it determines who can get access to social privileges and opportunities. This flash of thoughts gave me a feeling of affirmation for working with the farmers, with the poor. Hopefully, no longer shall we think that we can not organize a cooperative without an official organizer. By ourselves, we can organize a cooperative.

Session 3: The Possibility of Strengthening Cooperatives Through Federation

The idea of organizing union of cooperatives had come up during the Christian Leadership Training in the workshop “on Visioning”. That’s how people saw a possibility of gathering their strength, gathering their power through cooperatives. It was a long term vision for a cooperative development. Actually, organizing a union of cooperatives could not be done at that time considering that there were only three existing cooperatives in rural barangays.

During this PMEP, the idea of organizing union of cooperatives re-emerged and the participants asked about its legal basis. Bebot explained that there should be at least 6 primary cooperatives to organize a federation (or union of cooperatives as we called it). At that time, we could not yet count this number of cooperatives existing in our town. That meant it was quite far to engage into a bigger cooperative undertaking which can be tackled only by a federation. At least, we had already started the “one little step” closer to organizing a union of cooperatives.

Our experience of having organized a cooperative by ourselves was significant in the light of fulfilling our vision (Table 7.1). The Parish Consumers Cooperative we organized and that developed into a Multi-purpose Cooperative was to be the first cooperative organized in our town through local initiatives. This meant that there was a possibility to continue facilitating the organization of cooperatives in other
barangays without waiting for government initiatives and fulfil the organizing of
union of cooperatives. The union of cooperatives was considered a structure that
would ensure sustainability of cooperation - the strength of the poor in our
community. It was this possibility that we could organize by ourselves a union of
cooperatives, that inspired the participants to look at the legal possibilities such as the
requirements for registering a cooperative..

Session 4: The Requirements for Registering a Cooperative

After discussing the duties and privileges of the officers and members, of the General
Assembly, of the Board of Directors and the different committees, the requirements
for registration were discussed. This must have been one of the most awaited topics.
Everyone was interested to know how a cooperative could have its legal identity. The
requirements were explained by Bebot and he answered every query about how to go
about it.

After discussing these requirements, the seminar seemed finished. Then Pito, the
farmers’ leader opened up a dialogue.

The Spontaneous Dialogue

In-between sessions of the seminar, the farmers had been dialoguing among
themselves. So, Pito on behalf of the farmers group spoke, “Please let me raise
another thing that matters to us. We are still one with the idea of organizing a
cooperative, but perhaps have an independent one for farmers.” This idea of an
independent farmers cooperative had surprised the professionals for they thought that
farmers and professionals would be together in one cooperative. There was a
polarisation of ideas about farmers having a separate cooperative or merging with the
Parish Consumers Cooperative. At this point of polarization, the farmers group
recognized me as the facilitator and gave me the responsibility to decide about the matter.

At that instant, I recalled how the core group and the *ad hoc* officers of farmers decided for a cooperative from all walks of life. I wondered what happened to the desire of the farmers to merge with the Parish Consumers Cooperative. Having been together with the professionals in those two days of PMEP and the discussion of requirements for a capital build-up from members, caused the feelings of inferiority to recur. So I asked the farmers if they would like to have another dialogue to clarify their desire for a separate cooperative and their possibilities. They decided for another dialogue on August 28, 1993.

**Meeting with the Farmers:**

**Clarifying the Desire for A Cooperative and Its Possibilities**

(August 28, 1993)

This dialogue was meant to clarify the true desire of the farmers group, whether to organize a separate cooperative or merge with the Parish Consumers Cooperative. It was revealed in this dialogue that the farmers' hesitation was due to their lack of confidence that they would be able to fulfil the requirements of membership, particularly the capital build-up. It was this unspoken doubt of their financial capability, that created the tension among farmers during the PMEP (discussed in the previous section).

This dialogue coincided with the "Marriage Encounter" of the "Couples for Christ", a formation seminar for couples so some of the regular farmer-participants were not able to come. Although the farmers knew the agenda of this dialogue (that is, a
clarification of whether they would organize a separate cooperative or merge with the Parish Consumers Cooperative), I operated on an assumption that there was none. The participants would set their agenda as we held a ‘round-table’ discussion.

**A Round-Table Discussion**

A round-table discussion is our usual way of dialoguing, a process where every participant is given a chance to speak. We usually did this process particularly when we were discerning delicate matters such as this desire to form a cooperative which was complicated by personal issues.

I started by saying, “Our process for today is to sense what is the agendum or agenda that each one brings.” This was confirmed by Tay Lermo who said, “It would be nice if each one can express honest opinion, honest desire in order to come up with a clear decision about organizing a cooperative.” Everyone had a chance to speak of his/her thoughts. A summary of their thoughts follows:

1) There was a desire to form a cooperative, but there was a dilemma whether the cooperative would consist exclusively of farmers or the farmers would merge with the Parish Consumers Cooperative.

2) To decide the above issue some related issues were also identified:
   - The turn-over of participants. Although there were regular participants, there were always newcomers in the dialogue;
   - The confusion about whether to organize barangay cooperatives or join with the Parish Consumers Cooperative; and
   - If they desired to organize a separate cooperative, would the core group be able to assist them in the process?

I gave them my timetable - two more weekends before I was to return to Hawkesbury so they would have an idea of how much more facilitation I could render.
Raising the issue about the rapid turn-over, prompted me to give a review especially of the later development of our direction.

"Last May 22, it was agreed to form a cooperative. It was a strong desire in anticipation that even when the researchers would finish with the research, the initiatives could be continued with self-direction and local leadership."

"Last July 3 and 4, during the Christian Leadership Training, the emergent farmers group agreed on a vision of 'building a community where there is sharing, helping one another, and where there is fair share and equality'. How to achieve this was through a union of cooperatives. This union of cooperatives was something still remote, but something we could look forward to and that inspired our current efforts of forming a cooperative."

"Reaching the point of deciding how to organize a cooperative, we had a series of dialogues. One time, the farmers (the emergent group of regular participants) decided to organize a cooperative exclusive for farmers. There was an expressed desire to preserve the identity of farmers and taking pride that this is the group that has emerged from the series of research activities."

"July 25, we had the election of officers for the farmers group with the special purpose of working more closely with the core group to decide on cooperative formation. In our dialogues it was opened-up that the reason for hesitation to join the Parish Consumers Cooperative was because its members are predominantly professionals and rich."

"Despite this hesitation and feeling of inadequacy, it was agreed to merge the two groups. Then we had the Pre-Membership Education Program, where two of the farmers group wanted to go back to the original inspiration of having a separate cooperative. If we would go by voting, we could come up with a decision and let the majority rule. As everyone is important however, even if there were only two farmers
who desired to organize a separate cooperative, I think it is better to hear once again your desire and benefit from the energy it can bring."

The round-table discussion indicated clearly that they all desired to organize a cooperative with membership from all sectors of the community and that they were happy to merge with the Parish Consumers Cooperative. Their major problem was that they were poor and doubted their capacity to fulfil the requirements for membership, particularly on the capital build-up.

Sensing their great desire and resolution to join the Parish Consumers Cooperative, I remembered Kagawad Raymundo, a farm-laborer, who has no land, has no carabao. During the Christian Leadership Training, when we were working on our visions, I still remember his deep sighs before uttering his words, "In my responsibility for our barangay, sometimes I thought of organizing a cooperative, but I didn't have courage to initiate because to put up for a capital build-up I'm afraid I would not be able to fulfil it. My life is really terrible. My family is suffering with the meagre amount I earn. I tried to save whenever I get paid in my farm-labor, but it would surely be spent for the days that I don't work. I really can't save and I have nothing for my children except for food to survive and some cloth to cover my shame of being poor." I also shared my own experience of poverty when during my study I did not have enough money for food and had to glean the University gardens at night. Then I hoped against hope.

That was one of our most intimate sharings in the small group. We felt that unity, that connectedness, not only in our dancing and singing, but in the depth of our experience of suffering and pain and sharing the glitter of hope.

They all expressed a great desire to join the Parish Consumers Cooperative, but the question was, "How can we fulfil the requirements?" This question made me feel its context - the wealth of a good vision from a dreamer and the poverty of a poor man.
embodied in everyone ... in this group. They were waiting for my response on how to fulfil the requirements. Instead of an answer, I shared with them a story (Figure 7.1).

The story made a dramatic impact on the farmers group feeling of confidence. As Kagawad Raymudo said, “When Virgie drew the heart on top of the mountain, I felt it was my heart - filled with a desire for a cooperative development. My heart is there on top of the mountain, my body will also follow.” This was a significant decision for he is that poor man I mentioned earlier. Now he also dreams and he also decides on joining and supporting the Parish Consumers Cooperative. The other farmers made the same decision, so I invited them for a formal organizing of the Parish Consumers Cooperative which will be discussed in the next section.
There was an old man. He was tracking the rugged trail of a mountain. Along his way, he met a young boy who greeted him. "Lolo, (or grandfather) good day" "where are you going?". He said "On top of that mountain". The young lad quite perplexed (thinking to himself how can he manage when he has not enough provisions at all) continued to ask, "what have you got for your journey?" "I have some water in case I get thirsty when it is still far from the spring of water". "Do you think you can survive the scorching heat? (and he doesn't have a pair of shoes, or a hat), and that distance - it is like at the end of endless road? and it is so steep? Do you think, you can reach there?". The old man patted the young man on his shoulders and with his other hand pointed towards the mountain. "Look, my son, my heart is already there. My body will surely follow". And off he continued his journey.

(I drew this picture as I told the story).
It was an emergent story. It was not pre-planned to tell it. The participants inspired me to share it. It was an on-the-spot expression of what I sensed from the participants: a great desire for a better life, but knowing the reality of their limit-situation, and hoping against hope for beyond the limit-situation there lies the “untested feasibilities” (Freire, 1972). But it has to be spoken for a greater believing in our capacity to change.

It was a powerful imagery for us. The old man is embodied in most of us with our long history of poverty. As one interviewee once uttered, “My grandfather was poor, my father was poor, is there any wonder if I am also poor?” To have no land, no education, no stable job is like the old man not having enough provisions for his journey.

The mountain with its steep and rugged terrain is like the many seemingly insurmountable difficulties of the poor. This makes one’s heart faint, almost losing strength. In a dialogue with other travellers, one can realize the power of affirmation, or the power of questioning, “how can you reach there grandfather?” and see his heart, “It is already there, my body will follow”. One’s fears and dreams when shared with others, can build one story, one vision, one action.

This story was like each one’s story. We heard each other’s story in small group discussions especially as we searched for our dreams, a common vision: some desirable changes and strategies how to make the changes feasible.

In our transforming process of believing in ourselves, of believing “I am a champion, a legendary, or peak performer”, we found it powerful to tell each one’s story of how at one time or many times we had achieved more than we thought we could. Retelling that story enabled each one to see his or her “champion-self” and with that self-confidence to see “I am capable of making a difference in my life.”

When you believe in something you have made it true.

- (Jampolsky, 1990:1)
Formal Organizing of the Cooperative

August 29, 1993

This section discusses the fulfilment of our desire to organize a cooperative which embodies our idea of a cooperative development. The membership grew into 40 members from various sectors of the community. With the growing strength of membership, the Parish Consumers Cooperative was registered as Parish Multi-purpose Cooperative. A year after the registration of the Parish Multi-purpose Cooperative, despite phasing out this research, the membership grew to 80 members. Below is a story of the formal organizing of the Parish Multi-purpose Cooperative.

It was a day of celebration for the Parish Consumers Cooperative. It was one year since its informal organization and the operation of a consumers service. From a handful of core organizers, it has grown now to forty members. This included the new farmer-members. This Organizational meeting was presided over by Nay Ching. She has been active in our multi-sectoral workshops and the Parish Consumers Cooperative.

There was Tay Lermo, Tay Dimas, Nay Fe and Nay Auring, and some other farmers. There was a new social atmosphere that we would be entering. Before the meeting started, I found myself huddling together with the farmers group. I was feeling sad. The feeling of what Tay Lermo and the other farmers have been articulating I now felt, the seeming loss of “identity”. This is not the farmers group any more. Then I realized we had been together a long while through our “discourses” about the issues of the community and things that matter to us, and the dialogues for some feasible and desirable changes, our dreaming together. The bond that was created seemed to seek expression for a ‘distinct identity’ as Tay Lermo would call it. But the identity was not lost, it was just transformed to a new identity - not just a farmers group, but rather
a community from all walks of life. In the group, there was the teacher, the accountant, the farmer, the housewife, the shopkeeper, the engineer, the accountant, the priest. The fishermen are more resolved in their involvement in a cooperative development in the coastal barangays. The coconut growers are beginning to organize a coconut farmers organization. The dream for a cooperative development was beginning to be fulfilled.

Manay Fe called my attention. She looked around the place of the assembly where certainly she was aware of the presence of many non-farmers, as perhaps other farmers were also aware. Then she spoke “You know, Gie ... I was really very touched with that story of the old man (Figure 7.1). My heart was already on top of the mountain, so I must brave the journey. My body will also follow.” A similar tone of sentiment was expressed by Tay Dimas ... and with his spontaneous gesture of dancing saying, “As for me, my body will not just simply follow, my body will go dancing as it climbs the mountains ... to be united with the heart.” His funny gesture broke the ‘shyness’ as we burst into laughter which was very timely for the opening of the assembly.

Some Outcomes of the Organizational Meeting

The Organizational Meeting achieved among other things:

- The election of seven members of the Board Of Directors. One position was secured for a farmer to which Tay Lermo was elected.
- The organization of different committees composed of five members and at least one was a farmer. This was not formally agreed. But as I reviewed the minutes, I realized that there was one farmer in every committee.
- The planning of the economic activity (the livelihood) in which the Parish Multi-purpose Cooperative intended to engage.
As I was taking pictorial documentation when the participants were in small groups planning for an economic activity, I was delighted to see the group dynamics. There was much excitement as they deliberated on what was feasible and desirable thing to do for an economic activity.

The group where Tay Lermo belonged had come up with a plan on copra trading. I know it was Tay Lermo who brought this idea being himself a coconut farmer. He had a long articulation of its importance especially to the upland communities. He also opened the possibility that he and other cooperative members who are all from the upland could help operationalize the plan. They recognized that a cooperative copra trading would be helpful to the coconut farmers whose livelihood is affected by copra trading currently controlled by big businessmen.

The group where Manoy Mando belonged came up with an idea of a palay (or rice) trading. Although at that moment, there was one cooperative operating a palay trading there is still a huge volume of palay that still goes out of the granary of San Fernando. If this cooperative palay trading would materialize it would help a number of farmers.

The other group proposed to expand our consumers service and go into savings and credit.

There was much enthusiasm as each group presented their plans. Then, it was time to figure-out the budget. Enthusiasm was contagious, indeed. The budgeting did not dampen our spirit. It helped us dream further. Everyone pledged to give their build-up capital, 100 pesos, 200 pesos, 250 pesos. The dream to organize the cooperative was beginning to be fulfilled as it had already begun. The assembly ended with a song, “Praise be the Lord, alleluia” and that song lingered in our hearts.
Everybody was looking forward to the official registration of the cooperative with the Cooperative Development Authority. Before I returned to Hawkesbury on October, 1993, the Parish Multi-purpose Cooperative was registered. Since then, the Cooperative has assumed a life of its own.

*An Update of The Cooperative*

After the general assembly, the Parish Multi-purpose Cooperative continued its consumers service while building its capability to gradually expand its service. At that stage, a typhoon in the middle part 1994 destroyed many farm crops and our “consumers shop” was also damaged. There was a need for a credit service for farming, family and school needs. The Parish Multi-purpose Cooperative decided to open a new service: savings and credit. This was one of the grand plans fulfilled or beginning to be fulfilled.

“The calamity was a blessing in disguise,” Manay Letty, a core group member and now an active member of the cooperative told me in her letter. “We have revitalized our energy. Now we have increasing amount of savings and term deposits from our members and we are able to increase our loan service.” A little people’s bank was born.

In another letter, Manay Letty shared how the ‘people’s bank’ is growing. As of July 31, 1994, it had already given a total loans of 135,000 pesos to no less than 50 families and most of them are farmers. They used the money for farm activities, or for the school needs of the children. There were also new members. In a year’s time, the Parish Multi-purpose Cooperative, doubled its membership - from 40 to 78 members.
This was, for me, an affirmation of my conviction, and, indeed a shared faith, that we can better our life, that we can facilitate others to better their lives, through the process of learning together and cooperative action.

Having reached the stage of an organized group was one of the significant achievements of this Participatory Systemic Action Research. This and other outcomes will be discussed in the next chapter.
Chapter 8

Participation for Collective Learning and Cooperative Action:

Development of Collective Praxis

INTRODUCTION

This research is a story of development: a story of a quest for possibilities of improving the life of the people of a rural community in the Philippines. It was a rigorous search for knowledge in the open-ended process of life and work, with the intent for improving the quality of life of the people in our community by exploring ways of furthering the social interest, particularly of the poor. It was inevitably a development of collective praxis, the iterative process of collective reflection and collective action in order to transform the world, to improve the life situation of the people and of the community. Our community and the life of the poor were no longer something to be described, but rather the object of our transforming action.

Development of a collective praxis was the primary objective of the Participatory Systemic Action Research. Our collective praxis was a collective understanding of the situation and a collective action to improve the situation. It was a cyclical process of theory informing the action and action enriching or revising the theory.

The whole thesis is itself a praxis. The theories and assumptions influencing the research process were articulated in Chapters 3 and 4. The practice placed in the context of a rural community of San Fernando was discussed in Chapters 2, 5, 6 and 7. Our collective praxis was a form of practice in which the collective understanding came to bear directly on the collective action.

In an attempt to advance some theoretical contributions based upon the development of our collective praxis, our experience and ideas are placed in the context of existing
literature by highlighting the issues of participation raised in Chapters 3 and 4 and how in practice (Chapters 5, 6 and 7) an emancipatory action for change was achieved. The emergent outcomes of the Participatory Systemic Action Research shall be discussed in this chapter.

Participation And Its Emancipatory Character

With due respect and recognition of the diversity of values and heterogeneity of needs of the people, an authentic participation in the discourse and strategic action was ensured throughout the whole process of this research. Involving the various stakeholders is a fairness prescribed by the constructivist's paradigm (Guba and Lincoln, 1989) and an essential process required in the emancipatory process (Freire, 1972) or strategic action for change (Carr and Kemmis, 1986). Furthermore, as we experienced in this research, participation by the concerned people unleashed social energies that were capable of creating an organized action for change. The process and the outcome of organizing the research participants into a Cooperative was a significant achievement as will be articulated later in this Chapter. Reaching the stage of a strategic action was an affirmation that we overcame at a specific stage and context, the obstacles to the furtherance of our social interest. As Carr and Kemmis (1986) propound, "The truth, rightness and appropriateness of the views and decisions of a participant group ... can not be tested other than in action." They argued that, only through action can it be determined whether the factors frustrating the collective goals and social interests have been understood and overcome.

The process of participation is inherently emancipatory as the literature discussed in Chapter 4 would indicate and this was borne out in our research experience. In a community where the poor have a fear of participation for lack of self-confidence (Tandon, 1983) or due to prescription that they can not do anything (Freire, 1972),
every step of participation matters! Every step of participation is a significant achievement considering it as every step to emancipation.

Differences in judgment with regard to the value of participation can be attributed to various philosophical positions associated with participation - is it a means to an end? or is it an end in itself?

Participation as a means implies some form of pre-determined goals. To achieve these goals effectively would encourage or coopt for participation. The emphasis then is not so much on the process of participation as it is on its outcomes. No matter how sincere the intent of any development effort to help the people, this type of participation can fall to “utilising” people to achieve pre-determined targets, discretely downgrading the dignity of the human being.

Participation as an end is an entirely different concept. With it comes a respect that human beings are responsible knowing subjects capable of knowing what is good not only for themselves and their community, but also for the much larger community of the world.

As evidenced by our experience, there emerged an authentic participation of the people not only in the discourse, but also in the organization of a strategic action; not only in finding out, but also in taking action; not only in defining changes, but in its implementation. Such were humble efforts, but where every step counts, where every mile the farmers tread, or a day’s wage sacrificed to be able to come for the workshops is highly appreciated. A sense of collective effort and a glimpse of a collective action enkindled hope that the poverty stricken community had a chance to change.

Having been able to organize the participants into a Cooperative would find an affirmation from Third World community workers such as Tandon (1983). He observed that the underprivileged are primarily unorganised which he believed to be related to their state of poverty, exploitation and helplessness. He further argued that
“unless the (participatory) process leads to organization, one can not think of genuine participatory approach.”

The role of participation in an emancipatory process is well recognized in much of the literature discussed in Chapter 4 and aptly expressed in the metaphorical title ‘We Make the Road By Walking’ (Horton and Freire, 1990). Such was our entire research experience. The authentic participation was in no small measure, some steps to emancipation. As Levin (1994) argued, “Emancipation can never be achieved unless those involved participate in the process.” The participation we have thus achieved through the research process was an end in itself and a means that achieved the other emergent outcomes which shall be discussed in the next section. Viewing participation both as an end and as a means makes every step of participation a significant achievement.

**EMERGENT OUTCOMES OF THE RESEARCH**

In systems thinking, emergence is “the principle that whole entities exhibit properties which are meaningful only when attributed to the whole, not to its parts” (Checkland, 1981). I have decided to use the word “emergent” to describe the outcomes of this research. The full meaning of the thesis and its outcomes can best be understood by looking at the whole process of its development, by considering the interacting factors as a whole, not in separate parts or occurrences.

In our exploration of feasible and desirable changes, one of the recurrent themes was “value transformation”: a transformation “of the heart” or a change from a fixed consciousness (of powerlessness) to a sense of ability\(^\frac{1}{2}\) from unfreedom to freedom. This is a liberation or empowerment from within. This is not to discount the required social transformation (eg. structural reforms in the government or developing support mechanisms for the poor), but I could see the greater leverage of the process of change
from “inside-out” (Pinn, 1991). While it is personal it is also political in that it may lead later to some social transformation.

Such was our experience in this research. The metamorphosis of the kasaraditan, (the “small people”) and the development of collective confidence achieved the desirable and feasible change: the Cooperative Development which was considered the ultimate hope of the poor.

The initial achievement of our desired change (as it continues to be achieved) has been a product of the interacting factors of the methodology and the context of a rural community in a mutual causality -. So in this Chapter, the emergent outcomes shall be discussed. While these outcomes are closely interlinked with each other, they can be seen to consist of two main themes (Figure 4.7):

a) Improving the situation through Participatory Systemic Action Research; and
b) Examining the “Spiral of research methodologies” (Figure 4.5), as a heuristic in exploring possibilities for improving the situation. I will discuss the emergent outcomes of these two main themes as follows:

**PART 1. IMPROVEMENT OF THE SITUATION**

In this section, the research outcomes which can be seen as an improvement to the situation will be discussed with the themes that follow:

a) Organizing the cooperative: leverage for change;
b) What the participants have become in the process;
c) What I have become in the process
d) Development of my research praxis
Consistent with the motivation of Participatory Action Research of creating knowledge for change and development, this research was guided by our consistent search for possible improvement of the situation in our community. It was a conscious effort of making our research relevant to the needs of the people.

Let us hear once again the cry of the poor:

I was hungry and you formed a committee to investigate my hunger; I was homeless and you filed a report on my plight; I was sick and you held a seminar on the situation of the underprivileged; you investigated all aspects of my plight and yet I am still hungry, homeless and sick.

- (Ulbricht in Guzman et al., 1991:217)

Working in a poor rural community, the core group and I felt the impetus to respond to the urgent needs of the people for daily living. Feeling the struggle for survival of many, the passion for action built up in our hearts. In doing Participatory Systemic Action Research, we kept a balance of reflection and action. Reflection without action is purely rhetoric while action without reflection is sheer activism (Freire, 1972). To transform the world we need a balance of both critical reflection and responsible action. Thus, the processes and the outcomes can be considered as one.

Inherent in this research were the dual aims of participative action and participative research:

1) action to bring change in the community;

2) research to increase understanding on the part of the researchers and the research participants (Dick, 1991).

The quest for desirable change was a consistent consideration of “what constitutes an improvement” and “who decides it”. There was an attentive listening to the true interests and needs of the participants in our quest for leverage
Organizing a Cooperative: The Leverage for Change

Senge (1992) notes that the bottom line of systems thinking is leverage - seeing where actions and changes can lead to significant, enduring improvements. Often, leverage follows the principle of economy of means: where the best results come not from large-scale efforts, but from small, well-focused actions.

The idea of organizing a cooperative recurred throughout our process. Reflection on “leverage” and the social energies that it unleashed, emphasised that this was indeed a systemic response to the situation of the people and the community. In addition to saying that cooperation is the last hope of the poor, the participants stated that in cooperative development there is a balance of human and economic development. They considered that cooperative development satisfies their economic, political, social, psychological and spiritual needs.

Development is about people and not about objects... The best development process will be that which allows the greatest improvement in the quality of life. The next question is: What determines people’s quality of life? Quality of life depends on the possibilities people have to adequately satisfy their fundamental human needs. (And) human needs must be understood as a system: .. interrelated and interactive.

(Max-Neef, 1991:16-17, emphasis added).

The cooperative was that “desirable and feasible change” in our context of time and space. It has proved to be a synergic satisfier of our needs. Max-Neef (1991) proposes a theory that human beings have the same needs across cultures and across time and that what varies from culture to culture and from one period of time to another is how those needs are satisfied. He also identified synergic satisfiers which satisfy a cluster of needs (which can be seen to be similar to the idea of leverage in systems thinking, Senge,1992).
Based on the matrix of needs and satisfiers, (Max-Neef, 1991: 32) the Cooperative that we have organized can be seen to satisfy multiple needs as follows (See also, Update of the Cooperative in Chapter 7):

a) Subsistence - The Cooperative offers a possibility for starting small livelihood projects by offering loans. The livelihood projects can likewise earn a living for the participants.

b) Protection - The Cooperative provides an insurance for the people in the form of savings and credit. The members can deposit savings that would earn them interest and/or borrow some money for emergency needs.

c) Affection - The Cooperative stands not only for economic purposes, it offers occasions for the members to meet that gives a sense of solidarity, friendship, and mutual support. (The meaning of the cooperative for the people as an affective support is articulated in Chapters 5, 6 and 7).

d) Understanding - This is associated with the learning process that goes with the iterative process of finding out and taking action. This learning process that is inherent as the Cooperative continues to respond to the changing needs and challenges of the people. The Cooperative can continue to learning about itself as an organization in critical awareness of their own situation, the social structures within which the organization operates.

e) Participation - This can be seen both as means and an end. Participation was a means to achieve the desirable change defined in the participatory debate and was an end in that it achieved the desired change. The very process of participation generated power for self-organization. Having reached the stage of being an organized group, there is the potential for greater participation by the group in the community development with possibilities for partnership with non-government or government organizations for development.
f) **Identity** - "We are strong when we are united" was the slogan recurring in our pursuit of Cooperative Development. Unification gave a sense of belonging, a sense of identity.

g) **Freedom** - Having overcome the lack of self-confidence in leadership and having been able to organize was an affirmation of freedom to self-organize, to pursue the desired change.

The satisfaction of these multiple needs has been an affirmation of our capacity to change ourselves and our life situation.

Our research experience revealed that "leverage" lies where an effort can fulfil not only a singular need, but simultaneously stimulating and contributing to the fulfilment of other needs. The openness and reflexivity of the whole process led us to pursue that which makes people enthusiastic - where their social energy is greatest. This then satisfies a cluster of needs: it is a synergic satisfier of human needs. Moreover, the development of the Cooperative boosted self-confidence in social participation and community involvement and developed a sense of pride among its members. For they could say "we have done it ourselves". The Cooperative can continue to learn of its possibilities and the challenges of the environment and respond accordingly and collectively.

**What the participants have become in the process**

What the participants become or how they are becoming in the process is an important element in this research. In accord with Fals-Borda (1992), I also consider Participatory Systemic Action Research not only as a research methodology, but a philosophy, a way of life, a way of becoming.

The poor, with their sense of dependence, are products of a long history of paternalism (if not oppression). They have learned to extend their hands in supplication for help (Freire, 1972). The donor must have likewise reinforced and/or
have created the feeling of dependence. Without such external help the poor tend to think they can not do anything. A similar tendency was indicated by the people, the research-participants in our community. They initially thought the problems of the community could be solved only with financial assistance from the government or donor agencies. Through the long process of dialogues and workshops the participants reached the point of believing “even the poor have something to share” (discussed in Chapter 7) and we can do something by ourselves if we act collectively. Then in the process of exploring possibilities for the poor, in that search for desirable and feasible changes, a transformation happened with the “small people” (the kasaraditan). They moved from:

a) sense of resignation to a sense of hope and decision;
b) sense of dependence to a sense of self-help and cooperation;
c) from feeling small (and powerless) to feeling a champion;
d) to realisation that we can help ourselves.

What we achieved in organizing the Cooperative, a system of support to one another, (Chapter 7) is no more important than what we have become as individuals and as a group in the struggle of believing in the capacity to change and to transform the realities of our lives. This transformation can be seen as a little action in a possible chain of reaction for transforming the world!

An Articulation of The Transformation:

From A Sense of Resignation To A Sense of Hope and Decision

In Phase 1 of this research (Chapter 5), through the informal interviews many of the respondents expressed resignation to the problematic situation. It is a situation where one could feel similar with Freire (1970), “It is not the pitiful situation of the masses which saddens me, but their capacity to accept the situation.” In group interaction
however, the enthusiasm for exploring possibilities for change became contagious. They sighted the possibility for improving their situation through mutual support and cooperative endeavours. The prospect of cooperative development rekindled their hope for improvement of their situation and inspired them to make that improvement.

An Articulation of The Transformation:
From A Sense of Dependence To Self-help and Cooperation

Cooperatives are usually organized by a non-government organization or by government agencies, with built-in financial support as well as trained community organizers. These community organizers take care of the legal mechanics of forming the cooperatives.

When it was decided to organize the Cooperative, the research participants indicated a need for assistance in two aspects: the procedure of organizing; and the financial back-up which indicated a sense of dependence.

It was not until a cohesive group gradually emerged and realized that even the poor have something to share that there was a significant shift from a sense of dependence to a sense of self-help and cooperation.

An Articulation of The Transformation:
From Feeling small (and powerless) to Feeling Like a Champion

The organization of the Cooperative was motivated by the need for mutual support and a vision to build a community. It was decided that membership would be open to farmers and non-farmers, that there would be mutual support and care among the rich and the poor.
At one stage of organizing however, the farmers stepped back due to the feelings of inferiority farmers had in mixing with the professional members of the Cooperative. The series of dialogues and workshops was a process through which a reclamation of individual dignity took place. This fostered increased group interaction and taking of social responsibility.

Looking back, the experience of the farmers’ great enthusiasm during the dialogues and their slow response for action could be attributed to that feeling of inferiority. The reference to the poor as the ‘small people’ (kasaraditan) and their experience of powerlessness over their own situation in its possible mutual causality made the poor feel small and inferior.

That those farmers started a long way from feeling confident in themselves, but gradually developed that collective confidence necessary for joining efforts to organize a Cooperative is indeed a significant achievement. After all, there is no real emancipation without the emancipation of the mind. Equally important with this liberation from a feeling of powerlessness is the experience of an emancipatory action. For us, the experience of being able to pool our efforts and power and being able to organize ourselves into a Cooperative that protects our social interests was an experience of a strategic action and was an emancipatory process.

An Articulation of The Transformation:

A Realisation That We Can Help Ourselves

The process of the research, particularly in the implementation of the desired change was an affirmation that we can help ourselves, “we can stand on our own feet” (Nyoni, 1991) or “drink from our own wells” (Gutierrez, 1988). It was a unique experience for us to organize a Cooperative on our own initiative. It was also an experience of a research and action.
Finally, having been able to organize a Cooperative by ourselves was an experience of transformation from “inside-out” (Pinn, 1991), a change from a sense of powerlessness to a strategic action. Our experience of organizing a Cooperative and its relationship to rural development was affirmed by Torgerson (1995) when he said:

We frequently hear the saying ‘all development is local’. This implies the problem approach of cooperatives from the grassroots up, not from the top down. ... In the past, we have had many instances of attempts to establish cooperatives from the top down using government grants and other inducements. However, when the grants stopped coming, the cooperatives collapsed since they were not built upon the foundation of local members commitment (Torgerson, 1995:2).

What I Have Become In the Process of Becoming

If there is nothing of yourself in your thesis it is incomplete (Mills, 1994:77).

The whole research process was for me an experience of it as a philosophy, a way of life, a way of becoming. The research has made a difference in my life with ...

a) that sense of integration;
b) that sense of fulfilment;
c) that sense of mission;
d) that sense of solidarity;
e) the development of my research praxis.

The Sense of Integration

Not ever in my life have I had an experience as integrated as this research process. It was research not separate from other aspects of my life. This was an opportunity for me to pull myself together: my spirituality, my philosophy, my social responsibility, and simply my being me. It was also an integration of my technical interest and my
interest in community. The Participatory Systemic Action Research has become a way of life, a way of becoming.

The Sense of Fulfilment

The research process has brought forth a sense of fulfilment. My passion and preferential option for the poor which has developed with my Christian faith, was given an expression in the emancipatory character of Participatory Systemic Action Research. My sense of fulfilment came from a sense of collective achievement. What was achieved in the research was due to the interacting dynamics of the group of participants. My passionate engagement which gave me a sense of fulfilment was like “the trees in the orchard and the the flocks in the pasture ... They give that they may live, for to withhold is to perish” (Gibran, 1982:28).

The Sense of Mission

This research has given me an occasion to share the faith the community has in a loving God who cares about us, not only in matters of the spirit, but in matters of the world. “That’s how it is with God’s love, once you’ve experience it, the Lord of love is good to me I want to pass it on”, so goes our song. It was also an affirmation for what I believe with Freire (1972) is our ontological vocation, that of transforming the world.

The Sense of Solidarity

The sense of solidarity that developed among us, has been an affective support for me in carrying out the research, and an inspiration to move on with the research and the thesis writing. Moreover, it was that sense of solidarity that unleashed social energies capable of collective action.
Development of My Research Praxis

As this is a PhD thesis, it is necessary that I articulate the development of my research praxis. As I have discussed earlier (particularly in chapter 4), Participatory Systemic Action Research emerged out of a critique of traditional research which dichotomises theory from practice, reflection from action, research from its implementation.

The development of my research *praxis was not an option, it was an imperative, it was an ethic of care.* How could I leave the people in their critical understanding of their situation without facilitating some kind of critical intervention? What if they now understood that poverty was not just their own making, but due to some repressive structures of the society? What if they now understood that they also should have a fair share of development? What if they understood their situation needed an improvement? If they just ended up understanding the relevant issues without action, or critical reflection without critical intervention, or a sound theory without practice, then our “discourse” could turn into a curse. Perhaps the poor would go back to the hills, take up arms and launch a rebellion to fight an oppressive structure as it happened once in the recent Philippine history.

It was this *ethic of care* that spurred me on to develop my research praxis: a balance of critical reflection and critical intervention, not just understanding the situation, but improving it. With our research being instrumental in stirring the hope and to dream for “the untested feasibilities” of life and after exploring possibilities, who would not feel responsible to walk with them in finding a way through? This ethic of care, was an imperative, not just an option in the development of a research praxis.
PART 2. EXAMINATION OF THE RESEARCH METHODOLOGIES

Earlier, I have articulated the two main threads upon which the whole "tapestry" of the research process was interwoven: one was the search for improvement of the situation in our community; the other was, the examination and development of the 'Spiral' of Research Methodologies as a heuristic for community development. How the whole research process achieved the improvement of the situation was discussed in the previous section (Part 1 of this Chapter). Examination of the research methodologies: Spiral of Research Methodologies and the Soft Systems Methodology are the subject of discussion in this section. Before examining the said methodologies, it is deemed appropriate to evaluate the Participatory Systemic Action Research in its usefulness of exploring possibilities of improving the situation of our community.

Examination of the Participatory Systemic Action Research

In my choice for a Participatory Systemic Action Research I was guided by the following questions:

- Will the methodology be useful in understanding the situation in its complexity?
- Will it enable us to explore possibilities for the poor?
- Will it allow various perspectives to be expressed and true interests of the participants to emerge?
- Will it allow a common vision to develop?
- Will it generate a social energy capable of fulfilling the common vision or the desired change?

Cognizant that the choice of a methodology is both personal and political (Cornwall et al., 1994), I have articulated the guiding criteria/questions for my choice of the
Participatory Systemic Action Research so that in so doing, the consequences of that choice can be illuminated. The said criteria shall serve as my basis for the general evaluation of the Participatory Systemic Action Research.

*Understanding the Situation of the People and the Community In Its Complexity*

In this research a critical understanding was considered necessary for the purpose organizing a strategic action. A critical understanding of the situation was achieved through various methods and techniques of gathering facts and information about the situation and what this meant to the people. A dialectic interaction of the objective and subjective understanding took place. A collective understanding about the situation was achieved among the research participants, which is a hallmark of Participatory Systemic Action Research.

The Soft Systems Methodology provided a methodological framework that allowed a free movement of our inquiry from the broad issues of community development to understanding technical concerns of a possible improvement of the farming systems. The reflexivity of the Soft Systems Methodology and its principle of learning, has allowed a better understanding of the situation by being open to surprises in the never-ending flux between ideas and experiences as emphasized by Vickers (1984).

Some salient elements of our understanding that proved crucial in organizing our strategic action can be summarized as follows:

1) On Technical Issues. It was my initial assumption that what was needed to improve the situation in our rural community were some technological aspects particularly of farming. But as was revealed in our pluralistic methodology of inquiry, the farmers were confronted with urgent problems that were not necessarily technological in nature. The low production which
trapped farmers in a vicious cycle of poverty revealed some restrictive social, economic and political structures of the society. It is deemed important to reiterate the role of the “Spiral of Research Methodologies” in the shift from a technical focus to a broader perspective of community development;

2) With this understanding of the broader social context, the initial knowledge of the poor that their poverty is their sole responsibility was illuminated by a new understanding that their personal experience of poverty is a collective experience which indicated social, historical and political influences of the society.

3) This new knowledge of the dialectical interaction of personal experience and socio-political structures encouraged a quest for collective efforts to support each other in the furtherance of their social interests, in the implementation of their desired change.

In Allowing The Interests of the Participants To Emerge

In Chapter 4, the value of taking a certain position and a passionate stand was raised. My experience in a specific historical and social context of the dictatorial regime in the recent Philippine history has taught me that neutrality has no power. The dawning of this idea was actually a glimpse of what critical theorists had developed with regards to human knowledge. Habermas (1974) rejects the idea that there is a pure disinterested or neutral way of knowing. He contends that every act of knowing is influenced by what he called knowledge-constitutive interests which he labeled ‘technical’, ‘practical’ and ‘emancipatory’. Therefore, one of the central aims of a critical theory is the integration of values, judgments and interests of humankind into a framework of thoughts that would guide social action (Carr and Kemmis, 1986).

Congruent with a critical theory and its notion of knowledge-constitutive interest is the recognition that different people would have different interests. It is the fair chance of
expression of these interests that should be safeguarded in any form of discourse (Habermas, 1974), in an authentic dialogue (Freire, 1972) and debate about change (Flood and Jackson, 1991).

As will be noted in our research process, expression of the various interests of the participants was ensured and allowed an emergence of their true interests. The emergence of the true interests of the participants was achieved by conducting a series of dialogues and workshops with the various sectors of the community, dialogues with the barangays, focus group meetings and a series of meetings with the farmers.

While accommodating of various interests from the different sectors, ours was not a search for consensus, but for leverage, that area of a strategic action where little steps could lead to maximum benefits, not only of one sector, but from all walks of life. It was in cooperative development, enacted by organizing a formal Cooperative which we considered was one of the best (if not the only one) options where our social interests could be fostered.

In this research we tried to approximate an ‘ideal speech situation’ (Habermas, 1974) where the true interests of the participants could emerge. In our case, we had an experience of the poor-farmers feeling inferior in interacting with the professional-participants. We dealt with this issue by a series of dialogues with the farmers and conducting a leadership training for them which achieved an equal confidence of expressing one’s viewpoints, at least at that moment in our deliberation of desirable and feasible changes and its implementation.

Critics such as Jackson, (1990), Flood and Jackson (1991) do not see in the Soft Systems Methodology the due recognition of conflicting interests, much less the safeguard to a genuine participative debate. This critique and the contradiction with our experience of achieving an emergence of true interest among the participants while using the Soft Systems Methodology led me to see far beyond the methodology itself: is it a difference of context? - a community situation vs. a corporate
organization; or is it due to something outside the methodological character? - the role of facilitator and competence of facilitation. These questions will be dealt with in later part of this Chapter.

_in exploring possibilities for the poor_

In Chapter 3, I articulated how the advancement in technology has advantaged the rich, but deprived the poor. In our community where despite improved agricultural technology, farmers remained destitute moved me to explore some technical interventions that would be most relevant to the pressing needs of the farmers. The effective exploration of improving the situation of our community was achieved through the whole range of methodologies offered by the spiral of research methodologies. It allowed me to explore my technical interest and its possible relevance to the needs of the farmers, but ensured the emergence of the true interests of the people.

The whole process ensured an ‘attentive listening’ (Peavey et al., 1986) to the real needs of the poor by some responsive methods and techniques allowed by this reflexive spiral of research methodologies and the Soft Systems Methodology. These included photolanguage, strategic questioning, round-table discussions through the various stages of the research process. Thus, the courage to explore possibilities with and for the poor was achieved collectively.

_in allowing a common vision to develop or a desired change to be defined_

The development of a common vision as one of the emergent outcomes of the whole research process will be illustrated by citing the progression of the principle of cooperation to the notion of cooperative development to the action of organizing a Cooperative.
The themes of solidarity and cooperation have recurred throughout the research process. The need for mutual support was initially expressed with reference to the spirit of *bayanihan* which is the principle of cooperation or in simply helping one another. Their sad experiences of failure of cooperatives that were organized by the government left some doubts whether cooperatives were at all helpful for the people. This tension caused by their doubts about cooperatives and their felt need for support through cooperation made them see options revolving around the principles of cooperation, but they were not upfront in naming the need for organizing a Cooperative. So the theme of cooperation was like an echo that reverberated everytime we considered our visions for improving our situation.

In our continuous dialogue about our situation and how we could improve it, the principle of cooperation gradually came to be seen in relation to community development and the word cooperative development was pronounced. There was at that moment a growing recognition that improvement of the community could be achieved through organized cooperatives. At that point it was just an idea. It had no power for action. This situation was also complicated by the feeling of inferiority of the farmers in mixing with the professionals.

By dealing more deeply with the personal issues of the farmers, the moment came when they owned the idea of cooperative development. This was translated to the action and was translated to an action of organizing a Cooperative.

It was the sharing of their personal experiences and recognizing that they were a collective experience that facilitated the emergence of this common vision, that is, building a community through cooperatives. That was vision that embodied our needs for a system of support and the ideals of cooperation.
In Generating a Social Energy Capable
of Fulfilling a Common Vision or the Desired Change

The gradual emergence of a common vision that embodied the personal visions generated enthusiasm for its fulfillment. The vision of building a community through cooperatives inspired the participants to organize a multi-purpose Cooperative which was one step towards the larger vision of a Union Of Cooperatives. While far yet in the future, it has made one step nearer to its feasibility. (The Cooperative Code of the Philippines require a federation to have at least six primary cooperatives which at that time of our research there were only four registered cooperatives including the one we have organized in the whole district of San Fernando).

Examination of the “Spiral of Research Methodologies”

At the initial stage of this research the “Spiral” served as a useful conceptual device for holding different interests and paradigmatic perspectives (Chapter 3). It enabled me to hold an interest about animal nutrition while grounding it in the context of the rural community of San Fernando. I wanted to pursue that interest, but in the broad perspective of community development and with the participation of the people involved in the situation. I initially thought of moving through the different levels of complexity, starting from soft systems where I hoped to come up with a broad concept of how to improve the situation in our community to a reductionist research (in animal nutrition). Having done a Participatory Systemic Action Research, however, its direction was greatly influenced by the people of our community, in a way that was more meaningful to them. It was revealed during the research process that their pressing needs were not within the bounds of technological or basic science research.
In the light of our research experience, the "Spiral" of Research Methodologies provided a framework of looking at the heterogeneous needs of the people; it also validated the shift away from a technical focus and embrace a broader perspective of looking at the complex rural community situation. It can be argued that the spiral of Research methodologies provided a conceptual framework to view a problem situation and its improvement through multiple perspectives. Viewing the situation of our community through multiple perspectives had allowed the emergence and expression of the true interests of the participants. This in turn led to a definition and implementation of change that was systemically desirable and culturally feasible.

A Critique of Checkland's Soft Systems Methodology

Since the Soft Systems Methodology was used in this Participatory Systemic Action Research a critique about its effectiveness as a methodology for an action research is appropriate. I adopt the notion from Grundy (1990) where critique is used not for a sheer negative censure, but rather as an expression of positive intention towards a rigorous discrimination.

At the outset, it would be fair to clarify the context upon which the SSM was used:

1) SSM was one of the methodologies within the "Spiral of Research Methodologies" (Figure 4.5) which was developed from an agricultural perspective. As articulated in Chapter 4, the use of any methodology would depend on the nature of the problem and its level of complexity.

2) In the "Spiral of Research Methodologies", various perspectives and interests could be explored from agricultural to socio-political interests. One interest that was guiding the research according to Habermas (1974) typology of human interest was the practical interest where the goal was possible manipulation of the natural world (farming systems). As explained in the earlier section, urgent needs other than technical (agricultural) interest emerged which compelled us to move within the
sphere of “soft” realities. Thus, the research activities operated and were largely
guided by the Soft Systems Methodology.

3) It must be understood, however that the Soft Systems Methodology was used as a
methodology within the broad framework of Participatory Systemic Action
Research, the underlying theory and commitments of which have been articulated
in Chapter 4, e.g. the critical theory underpinning Participatory Action Research
(Fals-Borda, 1979, 1987 or Emancipatory Action Research Carr and Kemmis,
1986) and its commitment to emancipation.

4) The context of a rural community and my role as an insider-researcher (including
the core group members) was not parallel with the corporate setting and the service
of consultants solicited by managers and powerholders of a corporate organization
where mostly the SSM was used.

5) As such it would be unfair to judge the Soft Systems Methodology divorced from
the broad framework of the Participatory Systemic Action Research (Figure 4.6
used in this research and the context of a rural community.

Having established the context, I forward my ‘rigorous descretion’ of the Soft
Systems Methodology as used in this research based on its critique by Flood and
Jackson (1991):

**On Theory**

(a) The first criticism raised by Flood and Jackson (1991) on the Soft Systems
Methodology is the “restrictive nature of interpretive theory upon which SSM is
explicitly based” (Flood and Jackson, 1991:186). It is this similar critique on the
inadequacy of the interpretive theory in bringing about real transformation that has
led to the development of a critical theory which underpins most participatory or
emancipatory action research (Carr and Kemmis, 1986; Grundy, 1990). So in our
use of the SSM, the underpinning theory was not the interpretive theory. The influence of a critical theory was evident in the intent and process of this research which will be articulated further in later part of this Chapter. The critique on the interpretive theory is therefore not appropriate in our use of the SSM. The methodology was used, but not the interpretive theory.

The recognition of the conflicting interests of people is one outstanding character of a Participatory Action Research (Brown and Tandon, 1983; Borda, 1990). The Participatory Systemic Action Research is also committed to favor the less privileged as we have done in this research.

As evidenced, too, by our consistent search for the leverage and the systemic response to the various needs of the people, the strategic action (organizing a Cooperative for a cooperative development) proved to be satisfying in its small scale, the technical, practical and emancipatory interest (See articulation of the Cooperative as a synergic satisfier of human needs earlier part of this Chapter).

(b) Another criticism levied against the Soft Systems Methodology is its “conclusion that the only way to change social systems is by changing people’s world views or Weltanschaungen” (Flood and Jackson, 1991). I don’t agree with this criticism based on the following grounds:

- While a change in world views is considered important in SSM logic, there is no imposed restriction to limit transformation only at the level of the mind (worldviews or Weltanschaungen);
- The interaction between ideals (expressed in the Conceptual Models) and experiences of the real world would lead to a debate on desirable and feasible changes. SSM is open to the never-ending flux between ideas and experience (Vickers, 1984). The crux of the matter is “who” defines the change;
- The “who” and the level of participation is crucial in defining and implementing change;
• As borne out in this research, it is possible to use SSM underpinned by "multiple paradigms" (Chapter 3) and its implication for recognizing reality that which is constructed by the minds and the concrete reality. That for real transformation to occur, there must be a change in the consciousness (the intent of a conscientization process of a participatory research, Freire, 1972; Fals-Borda, 1987) and the concrete world (of politics and economy); the "abstract world" of ideas and the "real world" of experience.

(c) According to Flood and Jackson (1991), Soft Systems Methodology is silent about issues of conflict and coercion. This is not the case with Participatory Systemic Action Research. Inherent in a Participatory Action Research is its sensitivity to issues of power so that its recurring value themes include equitable distribution of resources, empowering oppressed groups, increasing self-reliance and transforming social structures into more equitable societies (Freire, 1970; Hall, 1981). It needs further reiteration that the interpretive theory and its related inadequacies which were the object of the above critique, did not guide the SSM in this Participatory systemic Action Research. This would open up another ground of scrutiny about the theory that a researcher holds in the conduct of their research. The theories that influenced the conduct of this research were articulated in Chapters 3 and 4.

**On Methodology**

The supposed character of the changes arising from the Soft Systems Methodology are systemic desirability and cultural feasibility. But in practice, as observed by Flood and Jackson (1991), it is the cultural feasibility that guides the definition of change which tends to favour the "dominant culture". The debate on feasible and desirable changes which are supposed to be "genuinely" participative is often left in the hands of the power holders. In regard to the issue of participation it was stated that
“Checkland should insist that the debate stages are conducted as far as possible according to the rules for establishing ‘communicative competence’ laid down by Habermas” (Flood and Jackson, 1991:189).

Jackson (1990) finds that the “only possible justification for implementing the results of a soft systems study must therefore be that results and implementation have been agreed upon after a process of full and genuine participatory debate among all stakeholders involved or affected”. Unfortunately, in situations where there are unequal power resources, Jackson (1990) contends that it is impossible to ensure a “genuine debate”.

While this critique of the inability of SSM to ensure a “genuine participation” could lead to a possible strategy of developing communicative competence among stakeholders, there is another aspect that needs attention, that is, the role of facilitation in the conduct of the “debate” or much better, of the whole research process. Based on our experience (which shall be articulated further in later part of this Chapter) I would argue that the role of facilitation and/or facilitator is equally, if not more important than the methodology in ensuring a genuine participation. The personality of the researcher-facilitator will certainly have a strong bearing on how well participation can be achieved. As Tandon (1983) contends “it is doubtful how an authoritarian personality of the researcher can encourage (participation) ...”

It must be noted that the difficulty, if not the impossibility of a genuine debate was observed mostly in a corporate organization where authority and power are strongly hierarchic. Also, other factors such as time constraints in the inquiry process, competence of facilitation and allegiance to the management who solicited the service of consultants, can tilt the balance of participation in favour of the privileged few.
On Ideology

Flood and Jackson (1991) argue that “the failure to establish the grounds for genuine participation means that the methodology will always serve those with power ...” Their critique against the SSM rested heavily on the issue of participation - how inadequate the methodology is in ensuring a genuine participation and in developing equal communicative competence among the stakeholders. But a genuine participation is at the very essence and ideological commitment of Participatory Action Research or an Emancipatory Research (See also Table 4.1 in Chapter 4, “Values and ideologies of participatory research).

This contradiction in the critique of SSM and our experience of its usefulness in exploring possibilities of improving the situation of a rural community leads me to discuss its effectiveness.

Effectiveness of SSM in a Context of a Rural Community

At this point, it can be clearly noted that Soft Systems Methodology was used as a methodology within the broad framework of a Participatory Systemic Action Research. As such its theories, ideologies and values were that of a Participatory Action Research and Emancipatory Action Research articulated in Chapter 4 with a central emphasis on authentic participation and strong commitment for emancipation. So judgment of the SSM can not be divorced from the Participatory Systemic Action Research used in this research.

As a methodology, SSM proved useful in providing a better understanding of the situation through Rich Picturing which was developed with methods and techniques which we decided appropriate and relevant in the context of a rural community. Furthermore, the SSM provided a framework for debate leading to definition of desirable and feasible change.
In our experience, the effectiveness of Soft Systems Methodology (Checkland, 1981) was challenged in the implementation of the defined changes. This research took place in a community context where there were no “powerholders” who could implement the defined change. There were no guidelines offered by the SSM to deal with this specific power-related issue in a community setting. A similar experience has been observed by Woodhill (1993) in using the SSM in a network of different organizations, with no single power authority and that have more complex set of overlapping purposes. SSM has earlier been critiqued (Jackson, 1982 and Flood, 1990) for its inability to deal with inequality of power (in a corporate context).

However, the ineffectiveness of SSM in dealing with power-related issues can be highlighted only when SSM is isolated from the whole interacting factors in the research process. In this research, it was the systemic integration of all other interacting factors that compensated for its inadequacy in dealing with such issues. These interacting factors included the role of facilitation which is equally if not more important than the methodology (that elicited active participation), the uniqueness of relationship of the core group with the whole community, the contextualization of a learning approach and others which will be discussed in the next section.

Our experience of the “power-related” problem in implementing an agreed “desirable and feasible change” led us to explore how we could generate forces of cohesive social energies to actualize such desired change. This led us to consider organizing the group simultaneously developing local leadership. It was the participants themselves who actually raised the issue of having leadership training so that even if the research phased out, they would be organized with some “power” or ability to implement the desired changes.

Through the organization of the Cooperative, we learned that an organization can build-up its own power or capacity to implement desired changes and likewise sustain them. The organization of the Cooperative was an emergent outcome of our learning
about how to improve our situation considering our constraints and possibilities. It was a response to the unfolding of events and understanding them in the light of what people desired and the possibilities there were for their fulfillment. *Learning throughout the whole process was the key ingredient for our responsive and responsible course of action.*

Using the SSM within the broad framework of and in the context of a Participatory Systemic Action Research which *ensured participation* at all stages, allowed the achievement of the outcomes discussed in this Chapter. It also ensured participation in all levels of the inquiry. When the research phased-out, the community members still continued to participate as active members of the Cooperative.

Our research experience about ensuring authentic participation, as argued earlier, is not attributable to one single factor e.g. the methodology, but rather to all of the interacting factors in their mutual causality. The two most important of these interacting factors are (1) the role of facilitation and (2) the contextualization of a learning process which shall be discussed in the next section which will be discussed in the next section.

**The Role of Facilitation**

The core group, with its diversity of experience, interests and personality dynamics, developed an “emergent” facilitation competence not possible with a single facilitator. In our various research activities, we learned each one’s particular strengths and we learned to orchestrate our facilitation process together.

The facilitation of the core group ensured participation in all levels of the inquiry. The competence of our facilitation was also seen in the way how the “generative theme” was allowed to emerge and be identified; how various interests were encouraged to emerge and agreement was reached for a desired change. And most significantly, the
way in which the core group facilitated the exploration of ways to implement changes by evoking the capabilities of the participants.

In facilitation, a “round-table” type of communication was very important. This gave everyone a chance to speak and also created an atmosphere where they could openly speak. A feeling of equality is required for this open type communication. It was an advantage to our facilitation that we could identify with the various sectors of our community. The participants acknowledged that they felt at home with and not “alangan” or inferior to the core group.

The similarity of our life’s experiences made us more sensitive to the needs and possibilities of our people. This helped us facilitate a collective learning experience in that search for an improvement of our situation.

As discussed earlier, the personality of the facilitator is important in facilitation. An important quality is sensitivity not only to the spoken language, but to the unspoken thoughts, ideas and feelings which must be uttered to generate power. In the group it was our experience that the farmers had great enthusiasm for organizing a Cooperative, but they were equally beset by unspoken great hesitation. It was the special sensitivity of the facilitators that helped recognize the constraints which was their sense of inferiority. When this was spoken at last the farmers reclaimed their power to act.

Other influencing factors influencing our competence of facilitation were:

(1) the facilitators relationship with the community;

(2) the role of identification;

(3) our passionate engagement.
Relationship of the Researcher and the Core Group to the Community

The rapport and good relationship with the community was there even before the start of the research as discussed in Chapter 5. All of us, at one time or another held some important leadership roles in socio-religious and political activities in the community on a voluntary basis. A special relationship is our being a part with of the community; we all live there.

Doing research that required participation of the people, but has no official mandate nor any visible incentives, except for hope that together we could do something to help ourselves, required the people’s trust. When we were grappling with how we could implement the desired changes, which was a long process, what kept us steadfast was the trust we had for one another. This was achieved by our relationship with the community which allowed us to do a “First Person Research” (Carr and Kemmis, 1986), where there was a strong sense of solidarity with the people bound by an ethic of values, rationality, justice and freedom.

The Role of Identification with Other Participants

Our relationship with the community allowed for a deep identification with the community that fostered open communication. One important point of identification was the history of being poor. While the core group members are all professionals, all of us have experienced poverty. This experience has been helpful for us, the core group, to identify and be identified with the poor as well as the professionals. It has served as a unifying factor, particularly during the organizing of a Cooperative which was composed of people from all walks of life.
Passionate Engagement

My passion and that of the core group members has enthused the research participants in that quest for improving our lives and our community. Facilitating this research where the goal was not just understanding a situation and constructing theories about it, but finding ways of improvement, our passionate engagement proved to be powerful in initiating and sustaining participation in the community endeavour.

Our previous involvement in the socio-political and religious concerns of the community had enkindled in our hearts a deep concern for our people. Doing a Participatory Systemic Action Research provided one more avenue for our continued engagement with our community. Our similar struggles and hopes in life and the solidarity with our people made our participation in the research a truly passionate engagement. Such a passionate engagement of the core group contributed to effective facilitation of exploring possibilities with the rural poor.

Contextualizing The Learning Approach

As this research was an exploration of possibilities, it was a continuous learning process. It was a type of learning that allowed for collective understanding and collective action; a process that developed our collective praxis.

A learning process approach is appropriate for most areas of human activity. It presumes that neither the ends nor the means of social interventions can be fully known in advance, and that understanding and consensus on them must be built through practical experiences (Uphoff, 1992:12).

At the crux of our learning process was the sharing of personal experiences which made us aware that ours was similar to that of others and that this was a collective experience of the poor. The primacy of personal experience and values as the basis of
the learning process contains within it a dynamic concept of learning. As Reed (1984) puts it:

This approach [of learning based on values and experiences] makes full recognition of the fact that learners and society are constantly interacting, bound together in a dialectic of change. (Reed, 1984:5)

Such approach to learning contains within it a potential for a Critical Systems Thinking which I shall articulate in a later section.

The organization of our Cooperative, while it is a "little" response to a cluster of needs of the poor (discussed earlier), has a political potential which can not be overemphasized. There is a great potential that as the cooperative continues to respond to the needs of the community, and as it widens the sphere of the problem context in its interaction with existing social structures, there will be a growing awareness that neither the individuals, nor the organization operates in a social vacuum. Accordingly, the learning will continue through viewing the dialectic interaction of individuals and society.

Looking at the learning process in a cooperative is to emphasize the importance of collective learning for emancipation. Emancipation is a social process; it can only be achieved by collective efforts.

The Soft Systems Methodology:

Its Potential for Emancipation

This section is an attempt to see the potential of the "Soft Systems Methodology" for embodiment of a Critical Systems Thinking based on this research experience. The following considerations must be noted beforehand:

a) The sensitivity of Participatory Systemic Action Research to issues of power and resource distribution and its commitment to social transformation, is similar to that

b) The Participatory Systemic Action Research is underpinned by systems theory particularly its ideological principle of emancipation.

c) Emancipation can be seen as a process of fulfilling what Habermas calls "constitutive human interests" (or what Max-Neef calls the matrix of human needs). Emancipatory process is dedicated to helping overcome constraints which prevent us from furthering our social interests.

d) In a situation where legitimacy of power or resource distribution is questioned, a research methodology can either maintain a status quo or tip the scale of power. One critique levied against the Soft Systems Methodology is is its inability to deal with inequalities of power (Jackson, 1982; Flood, 1990).

Within the context of the above considerations, it can be proposed that the Soft Systems Methodology exhibits a potential for the practice of a Critical Systems Thinking particularly in its dedication to human emancipation. This proposal is based on the following considerations:

a) The Soft Systems Methodology was done within the broad framework of a Participatory Systemic Action Research which was participative at all levels of the inquiry. The construction of conceptual models was done by the core group (which is also arguably participative having been done by some 'representatives' of the community) and all other activities were highly participative particularly in the definition of desirable and feasible change and its implementation. As such, considering the inherent emancipatory character of participation, the methodology exhibited a potential for putting Critical Systems thinking into practice as regards human emancipation.

b) There was a consistent search for "what constitutes an improvement" and "who defines it?" This was achieved through extensive inquiry (Chapter 5, 6 and 7) which allowed the needs and social interest to emerge and be identified.
c) The process of defining changes and exploring ways of implementing these was highly participative and through the process of participation the group gradually owned the responsibility for the process.

d) The researcher-facilitators were not in any way contracted by any powerholders to whom allegiance could tilt the research direction or determine whose values and interests would be favoured.

There was a clear preference to help the poor in search for some possibilities for improving their situation. In a sense, the very choice in the beginning of the research to stand in solidarity with the poor, was an outstanding expression of dedication for emancipation of this sector whom Gandhi called, the “last” the “least” the “lost”.

Considering our context, the “critical kernel” of the Soft Systems Methodology was manifested in the contextualization of a learning approach. This has a potential empowering quality, considering the following points:

a) The interest of the participants determined the direction of the learning process, not that of any agency or instrumentality.

b) The personal experiences that became a collective experience through the process of sharing, were the basic content of the learning process. Making experience the object of the learning process had an empowering quality which could be directed to help overcome constraints in furthering our social interests (Reed, 1984). The realization that we are all poor led to the creative response of organizing a Cooperative with its personal and political support system for the furtherance of our interests and needs.

As the cooperative continues to respond to members’ needs the and furtherance of its social interests new constraints may be faced which can trigger a new collective learning that can lead to a new collective action.
CONCLUSION

With this research experience profoundly grounded in a specific context, it would not be wise to offer a generalization, nor suggest its direct transferability to another context. Nevertheless, as the emerging learning paradigms commonly recognize "knowledge and associated technology are seen as contextual in time and space and so limited in their transferrability, while ways of learning have wider applicability" (Pretty and Chambers, 1994). Here, I will outline the highlights of our learning process and some implications for future practice.

This research was motivated by a strong passion for a meaningful research performed in a manner that would benefit the people of our community. My initial idea of improving the situation of San Fernando through an effective technical intervention was challenged by the realization that different stakeholders would hold different perceptions about the situation and how to improve it. This research then took an assumption that rural development situations are complex and their improvement should start from the exploration of the heterogeneous needs of the people.

This led me to a quest for a methodology that would allow various perspectives to be expressed and the interests of the participants to emerge. The Participatory Systemic Action Research proved effective in coming up with a collective understanding of the situation which in turn led to a strategic collective action. This research, while fulfilling its raison d'être of fostering change through action, also served as a verification of the value and usefulness of a Participatory Systemic Action Research; the effectiveness of the "Spiral of Research Methodologies" in holding multiple paradigms and viewing a situation through multiple paradigmatic perspective; and the effectiveness of the Soft Systems Methodology in systemic understanding of the situation and in fostering debate on feasible and desirable changes was illuminated in the light of our experience. However, a rigorous discrimination of contextual specificity must be realized as argued earlier. The achievement of the research
outcomes can only be attributed to the whole interacting factors in its mutual causality and not in any single separate factor.

Ensuring participation at all levels of the inquiry was vital in generating social energies capable of collective action. As articulated earlier, while participation may not be guaranteed by a certain methodology, but it can be encouraged by competent facilitation. The relationship of the facilitators and the research participants and relationships among participants are key factors in ensuring participation.

The value of participation in exploring possibilities with and for the rural poor was also verified in this research. Authentic participation is possible and can be seen as an emancipatory process. After the research is complete, the people can say with pride ‘we have done it ourselves’.

At the heart of this research process was our learning by being open to surprises in the never-ending flux between ideas and experiences. At the crux of our learning process was its contextualization in the dynamic interaction of personal experiences (and collective experiences) and our society mutually in influencing change.

The entire research process served as an affirmation that indeed, we can better our life and that we can facilitate others to better their lives through the processes of learning and working together.

**Some Implications for Future Practice**

This section will highlight some points which are deemed important to consider in doing similar research:

**The Relationship of the Researcher**

**and the Research Core Group with the Community**

Being an insider-researcher with a research core group who had previous involvement with community activities was an advantage in building trust and encouraging
participation. Building the bonds of solidarity was easier than perhaps with an outsider-researcher. But this is not to be interpreted as discounting the roles of outsider-researchers. There must, however, be a recognition of this contextual difference so an appropriate approach can be made.

**Continuity and Length of Time**

The achievement of action in a Participatory Systemic Action Research may take a longer time than a pre-designed project. It may take a much longer time, especially if the research has very limited resources and has to depend on the ingenuity and resourcefulness of the participants.

Having stirred the people towards a critical understanding of the situation and debate on desirable and feasible changes, it was seen to be necessary that we reach the stage of action, that is, of implementing desired change. Consideration of the continuity of involvement and length of time of the research becomes significant in reaching the stage of action. In our case, the implementation of the desired change happened on the third field work, two and a half years years after the research began.

Working with multi-sectoral groups may cause a high turn-over rate of participants, particularly at the stage when desired changes are not yet defined. The urgency of the poor to solve easily discernible problems can cause impatience about waiting for desired ‘action’. Such impatience my cause a high rate of turn-over which in turn can delay the process of reaching the implementing stage. In our experience, we felt it was essential and ethical to reach the stage of implementing changes.

World Neighbours a community development organization with long years of experience (Bunch, 1985) suggest that “if we organize a cooperative, we are committing ourselves to continue working with it for at least three or four years”. This length of time would allow the organization to become self-reliant.
Hence, it was quite premature to leave the Cooperative on its own, but one and a half year was the longest time I could spend with this research (for I still had to write this thesis). The premature withdrawing of my facilitation was however, buffered by having the core group members who continued to be active members of the Cooperative.

Moreover, my personal commitment did not end with formal phasing out of the research. I, too, continue to be a member of the Cooperative. A continued communication especially with the core group, mutually nourishes our sense of connectedness and we inspire each other to continue journeying with our people because we love and we care. As the participants expressed during the concluding workshop, “We look forward to the moment when we can work together again and continue fulfilling our vision of a better life, a better community.” As I finish this thesis, I go home with a sense of fulfillment as our stories have been told: the life of the poor can change!
LITERATURE CITED


International Institute for Environment and Development.


Nyoni, S. 1991. A talk on "Sustainability, Development and Us. at Stratfield, NSW. Organized by Agriculture and Food Group of Action for World Development."


386


---


APPENDIX

Table 5.1. The opinionnaire in its English translation.

Direction:

The following are comments about some themes about our life and our community. You are free to agree or disagree with the statements. There is no such a right or wrong answer. We just would like to sense as to what extent you agree or disagree with each of the statements. Each statement has column for you to encircle which best represents your honest opinion.

1 - strongly disagree (SDA)
2 - disagree (D)
3 - uncertain (U)
4 - agree (A)
5 - strongly agree (SA)

<table>
<thead>
<tr>
<th>SDA</th>
<th>DA</th>
<th>U</th>
<th>A</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Despite myriad of problems, there are limitless chances to improve one’s life.

2. There is a need for the full support of the government (financial, technological and other support) in order to realize our dreams of a prosperous life.

3. Who does not like to prosper? But this is my fate -poverty.

4. Most of our youth who finished a degree have no jobs yet they don’t like to work in a farm or any blue-collar job.

5. The weight of the problems in our community can be lighter if only we can help each other.

6. People who trust themselves and their fellowmen are the ones who show concerns for the development of our community.

7. I can foresee our community will prosper in the near future as each family also prospers.

8. I don’t care if our community is poor as long as my family well enough.

9. We are victims of events that we can not understand and about which can not do anything.

10. Our government has ineffective strategy in helping farmers improve their farming and animal production.

11. Through involvement in people’s movement, the grassroots constituents have more chances to make their sentiments heard by the government.
(12) My present situation is a result of my own efforts or negligence.

13. If the poor can organize themselves a cooperative, they can also contribute and have a share in our economic development.

14. Cooperative people have more chances to succeed in life.

15. I don't like what's happening in my life that's why I'm almost losing my hope to improve it.

16. I possess the capability to improve my own life

17. If everyone will cooperate in the development activities being undertaken in our community, we will easily achieve progress.

18. I think it is good to give both positive and negative feedback to the people concerned.

19. I would be extremely happy if we can eliminate poverty and improve our life.

20. My future does not depend on my fate but my ability to work for it.

21. I can see that our country is not getting any better and we will be poorer in the coming years.

22. You dream ... work for it and it will be realized

23. Even if I have just a low level of educational attainment, I also have something to share that may promote the development of our community.

24. Only those who are daring and enduring are the ones who become prosperous.

25. A continuous education of our people and promotion of livelihood projects is needed to make our community progressive.

26. I am happier in helping others rather than amassing wealth.

27. I doubt my ability to uplift my life.

28. There are many families in our town that are poor.

29. The weak, once they are united could do better than a strong and powerful person.

30. The development of a community rests on its people.

31. I am willing to sacrifice for a project that will promote the well-
being of our people.

32. When necessary, I do not hesitate to express my opinion.

33. I get discouraged when I can see the problems to be bigger than my capability to solve them.

34. Poverty can encourage a person to work harder.

35. Money is only a material thing participation and cooperation of everyone can do more good for our development than what money can.

36. Our community is poor because of the indifference and apathy of our people.

37. What is needed for the improvement of our life and our community is constant cooperation, sharing and sacrifice.

38. I do not need others in order to live happily.

39. It seems I can not reach my dreams because of so many constraints.

40. I was born in poverty, and in poverty I also live.

41. If I will act by myself alone, I would not be able to help much in improving the situation of our community.

42. Many things need to be changed before progress can be attained.

43. Even the little amount of money that we have, if it can be pooled all together it can be a good capital for some livelihood projects.

44. When somebody speaks, I try to listen to his or her ideas

45. If I plant, natural calamities destroy it, if I raise some animals, it just get stolen, or if I harvest some produce, the prices are low, hmm, I think it's just better not to work harder. It's just the same.

46. Even if I am only an ordinary citizen. I am aware of my obligations to our community.

47. Through our concerted efforts, we can change the way our government is being administered.

48. The physical condition of our environment can affect the life of human beings.

49. Our town will become more productive if we
50. My respect for a leader depends upon his integrity while serving the people.

51. I do not care about what’s happening in our society because I am already resigned that the present state of things will not change at all.

52. If there is only anything I can do to help my neighbors or the people in our community, then I would be glad to do it.

53. Nothing is impossible if we are united in thoughts, in words and in deeds.

54. Government development projects should take into consideration the present situation and real needs of the people.

55. It is nice if everyone will work together for our development.

56. I feel inferior when I deal with the people in the higher strata of our society.

57. I also have some ideas how to develop our community but I don’t know how to share them.

58. About half of our population depends in farming for a living and most of them have just a small piece of land producing barely enough for their families.

59. People getting united one first step towards community development.

60. It is necessary to criticise wrongdoings of government leaders in order for them not to forget that they are supposed to serve the people.

61. It is better if the government authorities will launch a relentless campaign against robbery and insurgency.

62. I am only interested to attend a meeting when there is a guest speaker.

63. My opinion is just a "small voice" which can not influence at all any decision about our community.

64. Majority of population are young people who are mostly jobless.

65. The evil deeds of our leaders will be changed only if a group criticises and urges the stoppage of these acts.

66. The strength of the members depends upon the strength of the leaders.

67. I would like to have cooperative in our place.

68. It is our responsibility to develop our community

69. We have no power, so it’s just a waste of effort to change our
situation.

70. Because of poverty many of our young children suffer undernourishment.

71. In our present situation, it is not good to work individually because of the immensity of our problems. We need to cooperate and be united.

72. Frequent meetings about government's program will bring progress to our lives.

73. If the work is not related to the course I have completed, I'd better stay idle or unemployed.

74. If our society is not well-directed, the dreams of the present generation will just turn to nothing.

75. About one-half of agricultural lands in our town is productive, it seems.

76. The lack of wealth and power be equalled by a strong unity of the people.

77. The people's desire to progress will be a strong motivation that will inspire them to work harder.

78. Whether you work or not, you will eat. Why should I bother to work?

79. It is better if everyone starts to help himself (or his family) rather than just wait until the poor gets organized for a cooperative

80. Farming is not really lucrative because of pests, lack of irrigation facilities and prohibitive and expensive fertilisers and chemicals.

81. We can help others not only through money.

82. The right implementation of the laws and policies earns the trust of the people to the government and its leaders.

83. If my child has finished a degree I would not allow him or her to work in the farm or feed the animals.

84. I am discouraged from joining any organizations because it does not bring any good results at all.

85. Many of the families who are well-off in our town are those who have a stable job, owners of their own rice fields and those whose children work abroad.

86. There is no such thing as a heavy work all will give a helping hand.

87. The negative attitude of some of our people is one of the problems of the leaders in our community.

88. There are only few big-scale businessmen in our town, mostly are engaged in small-variety-retail store businesses.

89. The plans of our leaders to improve our community will be realized
90. One of the constraints in leading our community to development is the selfishness of some of the people.

91. Drinking, gambling and other vices are among the reasons why families suffer from poverty.

92. Any heavy problem becomes easy to solve when everybody helps.

93. People's cooperation is vital in achieving progress for our community.

94. The gauge of effective administration is the extent to which it has made possible the improvement in the life of the people.

95. The unity of the group is a power that can change undesirable situation into a peaceful transformation.

96. The insurgents is one big problem of our country.

97. Even if I lack material possessions, I am also prepared to help others.

98. Some of us are not aware of the programs of the government, so there is a feeling of disappointment as if nothing is being done.

99. Everybody has his own knowledge gained from his own experiences and if these will be shared together, it can bring good results.

100. There are still many kind hearted people and willing to help so our progress is not really that difficult.

101. We should strive to have a good relationship with our neighbours or the people in our community.

102. People who do not care about others are those who don't have enough self-confidence and trust in others.

103. In times of poverty and sufferings, the "light of change" rests in our hands.

104. First and foremost, we should try to understand the prevailing situation of our community, then be united to work out things that will improve the quality of our life.

105. All of us are brothers and sisters because in Christ. It would be better if we help each other in improving our well-being.
Table 5.2.1. Evaluation form of the opinionnaire

Direction: Using the rating scale below, please indicate your evaluation of the foregoing opinionnaire which you accomplished, according to the specified criteria.

Rating Scale:  
5 - Excellent  
4 - Very Good  
3 - Good  
2 - Fair  
1 - Poor

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clarity of the opinionnaire</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>2. Comprehensiveness of the content</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>3. Relevance of the content</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>4. Conciseness of the statements</td>
<td>5 4 3 2 1</td>
</tr>
<tr>
<td>5. Time required to finish accomplishing the opinionnaire</td>
<td></td>
</tr>
<tr>
<td>Please check</td>
<td></td>
</tr>
<tr>
<td>( ) Too long</td>
<td></td>
</tr>
<tr>
<td>( ) Long</td>
<td></td>
</tr>
<tr>
<td>( ) Just enough</td>
<td></td>
</tr>
<tr>
<td>( ) Short</td>
<td></td>
</tr>
<tr>
<td>( ) Very short</td>
<td></td>
</tr>
</tbody>
</table>

Please give your comment, suggestion or recommendation which you deem necessary to improve the opinionnaire.

General suggestion:

On Awareness:

On Perception:

On Aspirations:

On Fears/Constraints:

On Attitudes:

On Participation:
Table 5.2.2. Results of the evaluation of the opinionaire.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>WEIGHTED MEAN</th>
<th>INTERPRETATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clarity of the opinionaire</td>
<td>3.6</td>
<td>Very Good</td>
</tr>
<tr>
<td>2. Comprehensiveness of the content</td>
<td>3.3</td>
<td>Good</td>
</tr>
<tr>
<td>3. Relevance of the content</td>
<td>3.72</td>
<td>Very good</td>
</tr>
<tr>
<td>4. Conciseness of the content</td>
<td>2.9</td>
<td>Good</td>
</tr>
<tr>
<td>5. Time required to finish accomplishing the opinionaire</td>
<td>2.8</td>
<td>Just enough</td>
</tr>
</tbody>
</table>
Table 5.3. Results of the opinionaire and interpretation by categories.

<table>
<thead>
<tr>
<th>Item Number</th>
<th>AWARENESS</th>
<th>PERCEPTION</th>
<th>ASPIRATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weighted Mean</td>
<td>Interpret -ation</td>
<td>Item Number</td>
</tr>
<tr>
<td>4</td>
<td>3.18</td>
<td>U</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>3.76</td>
<td>A</td>
<td>7</td>
</tr>
<tr>
<td>16</td>
<td>3.85</td>
<td>A</td>
<td>13</td>
</tr>
<tr>
<td>22</td>
<td>4.21</td>
<td>A</td>
<td>19</td>
</tr>
<tr>
<td>28</td>
<td>4.18</td>
<td>A</td>
<td>25</td>
</tr>
<tr>
<td>34</td>
<td>3.94</td>
<td>A</td>
<td>31</td>
</tr>
<tr>
<td>40</td>
<td>3.21</td>
<td>A</td>
<td>37</td>
</tr>
<tr>
<td>46</td>
<td>4.06</td>
<td>U</td>
<td>43</td>
</tr>
<tr>
<td>52</td>
<td>4.27</td>
<td>A</td>
<td>49</td>
</tr>
<tr>
<td>58</td>
<td>3.42</td>
<td>U</td>
<td>55</td>
</tr>
<tr>
<td>64</td>
<td>3.79</td>
<td>A</td>
<td>61</td>
</tr>
<tr>
<td>70</td>
<td>4.03</td>
<td>A</td>
<td>67</td>
</tr>
<tr>
<td>75</td>
<td>3.69</td>
<td>A</td>
<td>72</td>
</tr>
<tr>
<td>80</td>
<td>3.24</td>
<td>U</td>
<td>77</td>
</tr>
<tr>
<td>85</td>
<td>4.00</td>
<td>A</td>
<td>82</td>
</tr>
<tr>
<td>88</td>
<td>4.06</td>
<td>A</td>
<td>87</td>
</tr>
<tr>
<td>91</td>
<td>4.27</td>
<td>A</td>
<td>90</td>
</tr>
<tr>
<td>94</td>
<td>3.70</td>
<td>A</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>96</td>
<td>A</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>1.5</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>104</td>
<td>4.12</td>
<td>A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item Number</th>
<th>FEARS/CONSTRAINTS</th>
<th>ATTITUDES</th>
<th>PARTICIPATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Weighted Mean</td>
<td>Interpret -ation</td>
<td>Item Number</td>
</tr>
<tr>
<td>3</td>
<td>3.03</td>
<td>U</td>
<td>2</td>
</tr>
<tr>
<td>9</td>
<td>2.67</td>
<td>U</td>
<td>8</td>
</tr>
<tr>
<td>15</td>
<td>2.55</td>
<td>U</td>
<td>14</td>
</tr>
<tr>
<td>21</td>
<td>2.79</td>
<td>U</td>
<td>20</td>
</tr>
<tr>
<td>27</td>
<td>2.66</td>
<td>U</td>
<td>26</td>
</tr>
<tr>
<td>33</td>
<td>3.03</td>
<td>U</td>
<td>32</td>
</tr>
<tr>
<td>39</td>
<td>2.70</td>
<td>U</td>
<td>38</td>
</tr>
<tr>
<td>45</td>
<td>1.82</td>
<td>DA</td>
<td>44</td>
</tr>
<tr>
<td>51</td>
<td>1.73</td>
<td>DA</td>
<td>50</td>
</tr>
<tr>
<td>57</td>
<td>3.55</td>
<td>A</td>
<td>56</td>
</tr>
<tr>
<td>63</td>
<td>2.82</td>
<td>U</td>
<td>62</td>
</tr>
<tr>
<td>69</td>
<td>2.42</td>
<td>DA</td>
<td>68</td>
</tr>
<tr>
<td>74</td>
<td>3.97</td>
<td>A</td>
<td>73</td>
</tr>
<tr>
<td>79</td>
<td>3.94</td>
<td>A</td>
<td>78</td>
</tr>
<tr>
<td>84</td>
<td>1.94</td>
<td>SDA</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.4. The opinionaire by categories and its results.

<table>
<thead>
<tr>
<th>5.4.1 ON AWARENESS</th>
<th>Weighted Mean</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(4) Most of our youth who finished a degree have no jobs yet they don’t like to work in a farm or any blue-collared job.</td>
<td>3.18</td>
<td>U</td>
</tr>
<tr>
<td>(10) Our government has ineffective strategy in helping farmers improve their farming and animal production.</td>
<td>3.76</td>
<td>A</td>
</tr>
<tr>
<td>(16) I possess the capability to improve my own life</td>
<td>3.85</td>
<td>A</td>
</tr>
<tr>
<td>(22) If you dream and work for it will be realized</td>
<td>4.21</td>
<td>A</td>
</tr>
<tr>
<td>(28) There are many families in our town who are poor.</td>
<td>4.18</td>
<td>A</td>
</tr>
<tr>
<td>(34) Poverty can encourage a person to work harder.</td>
<td>3.94</td>
<td>A</td>
</tr>
<tr>
<td>(40) I was born in poverty, and in poverty I also live</td>
<td>3.21</td>
<td>U</td>
</tr>
<tr>
<td>(46) Even if I am only an ordinary citizen. I am aware of my obligations to our community</td>
<td>4.06</td>
<td>A</td>
</tr>
<tr>
<td>(52) If there is only anything I can do to help my neighbours or the people in our community, then I would be glad to do it.</td>
<td>4.27</td>
<td>A</td>
</tr>
<tr>
<td>(58) About half of our population depends in farming for a living and most of them have just a small piece of land producing barely enough for their families.</td>
<td>3.42</td>
<td>U</td>
</tr>
<tr>
<td>(64) Majority of our population are young people who are mostly jobless</td>
<td>3.79</td>
<td>A</td>
</tr>
<tr>
<td>(70) Because of poverty many of our young children suffer undernourishment.</td>
<td>4.03</td>
<td>A</td>
</tr>
<tr>
<td>(75) About one-half of agricultural lands in our town is productive.</td>
<td>3.69</td>
<td>A</td>
</tr>
<tr>
<td>(80) Farming is not really lucrative because of pests, lack of irrigation facilities and prohibitive and expensive fertilisers and chemicals.</td>
<td>3.24</td>
<td>U</td>
</tr>
<tr>
<td>(85) Many of the families who are well-off in our town are those who have a stable 5. job, owners of their own rice fields and those whose children work abroad.</td>
<td>4.00</td>
<td>A</td>
</tr>
<tr>
<td>(88) There are only few big-scale businessmen in our town, mostly are engaged in small-variety-retail store businesses.</td>
<td>4.06</td>
<td>A</td>
</tr>
<tr>
<td>(91) Drinking, gambling and other vices are among the reasons why families suffer from poverty.</td>
<td>4.27</td>
<td>A</td>
</tr>
<tr>
<td>(94) The gauge of effective administration is the extent to which it has made possible the improvement in the life of the people.</td>
<td>3.70</td>
<td>A</td>
</tr>
</tbody>
</table>
5.4.2 ON PERCEPTION

(6) People who trust themselves and their fellowmen are the ones who show
concerns for the development of our community.

(12) My present situation is a result of my own efforts or negligence.

(18) I think it is good to give both positive and negative feedback to the people concerned.

(24) Only those who are daring and enduring are the ones who become prosperous.

(30) The development of a community rests on its people.

(36) Our community is poor because of the indifference and apathy of our people.

(42) Many things need to be changed before progress can be attained.

(48) The physical condition of our environment can affect the life of human beings.

(54) Government development projects should take into consideration the present situation and real needs of the people.

(60) It is necessary to criticise wrongdoings of government leaders in order for them not to forget that they are supposed to serve the people.

(66) The strength of the members depends upon the strength of the leaders.

(72) Frequent meetings about government’s program will bring progress to our lives.

(77) The people’s desire to progress will be a strong motivation that will inspire them to work harder.

(82) The right implementation of the laws and policies earns the trust of the people to the government and its leaders.

(87) The negative attitude of some of our people is one of the problems of the leaders in our community.

(90) One of the constraints in leading our community to development is the selfishness of some of the people.

(93) People’s cooperation is vital in achieving progress for our community.

(96) The insurgents is one big problem of our country.

(98) Some of us are not aware of the programs of the government, so there is a feeling of disappointment as if nothing is being done.

(100) There are still many kind hearted people and willing to help so our progress is not really that difficult.

(102) People who do not care about others are those who don’t have enough self-confidence and trust in others.

(104) First and foremost, we should try to understand the prevailing situation of our community, then be united to work out things that will improve the quality of our life.
### 5.4.3 ON ASPIRATIONS

| (1) Despite myriad of problems, there are limitless chances to improve one’s life. | Weighted Mean | Interpretation |
|——|——|——|
| (7) I can foresee our community will prosper in the near future as each family also prospers. | 4.00 | A |
| (13) If the poor can organize themselves a cooperative, they can also contribute and have a share in our economic development. | 3.33 | U |
| (19) I would be extremely happy if we can eliminate poverty and improve our life. | 3.91 | A |
| (25) A continuous education of our people and promotion of livelihood projects is needed to make our community progressive. | 3.21 | U |
| (31) I am willing to sacrifice for a project that will promote the well-being of our people. | 4.09 | A |
| (37) What is needed for the improvement of our life and our community is constant cooperation, sharing and sacrifice. | 4.09 | A |
| 43. Even the little amount of money that we have, if it can be pooled all together it can be a good capital for some livelihood projects. | 4.03 | A |
| (49) Our town will become more productive if we stop vices such as gambling and drinking. | 3.91 | A |
| (55) It is nice if everyone will work together for our development. | 4.70 | SA |
| (61) It is better if the government authorities will launch a relentless campaign against robbery and insurgency. | 4.36 | A |
| (67) I would like to have a cooperative in our place. | 3.18 | U |

316
5.4.4 ON FEARS/CONSTRAINTS

(3) Who does not like to prosper? But this is my fate -poverty.
(9) We are victims of events that we can not understand and about which can not do anything.

(15) I don’t like what’s happening in my life that’s why I’m almost losing my hope to improve it.
(21) I can see that our country is not getting any better and we will be poorer in the coming years.

(27) I doubt my ability to uplift my life.
(33) I get discouraged when I see the problems to be bigger than my capability to solve them...

(39) It seems I can not reach my dreams because of so many constraints.
(45) If I plant, natural calamities destroy it, if I raise some animals, it just get stolen. or if I harvest some produce, the prices are low, hmm, I think it’s just better not to work harder. It’s just the same.

(51) I do not care about what’s happening in our society because I am already resigned that the present state of things will not change at all.
(57) I also have some ideas how to develop our community but I don’t know how to share them.

(63) My opinion is just a “small voice” which can not influence at all any decision about our community.

(69) We have no power, so it’s just a waste of effort to change our situation.
(74) If our society is not well-directed, the dreams of the present generation will just turn to nothing.

(79) It is better if everyone starts to help himself (or his family) rather than just wait until the poor gets organized for a cooperative
(84) I am discouraged from joining any organizations because it does not bring any good results at all..

5.4.5 ON ATTITUDES

(2) There is a need for the full support of the government (financial, technological and other support) in order to realize our dreams of a prosperous life.

(8) I don’t care if our community is poor as long as my family well enough.
(14) Cooperative people have more chances to succeed in life.
(20) My future does not depend on my fate but my ability to work for it
(26) I am happier in helping others rather than amassing wealth

(32) When necessary, I do not hesitate to express my opinion.
(38) I do not need others in order to live happily.

(44) When somebody speaks, I try to listen to his or her ideas
(50) My respect for a leader depends upon his integrity while serving the people.

(56) I feel inferior when I deal with the people in the higher strata of our society.

(62) I am only interested to attend a meeting when there is a guest speaker.
(68) It is our responsibility to develop our community

(73) If the work is not related to the course I have completed, I’d better stay idle or unemployed.

(78) Whether you work or not, you will eat. Why should I bother to work?
(83) If my child has finished a degree I would not allow him or her to work in the farm or feed the animals.
5.4.6 ON PARTICIPATION

(5) The weight of the problems in our community can be lighter if only we can help each other.

(11) Through involvement in people's movement, the grassroots constituents have more chances to make their sentiments heard by the government.

(17) If everyone will cooperate in the development activities being undertaken in our community, we will easily achieve progress.

(23) Even if I have just a low level of educational attainment, I also have something to share that may promote the development of our community.

(29) The weak, once they are united could do better than a strong and powerful person.

(35) Money is only a material thing with little impact by itself. Participation and cooperation of everyone can do more good for our development than what money can.

(41) If I will act by myself alone, I would not be able to help much in improving the situation of our community.

(47) Through our concerted efforts, we can change the way our government is being administered.

(53) Nothing is impossible if we are united in thoughts, in words and in deeds.

(59) People getting united one first step towards community development.

(65) The evil deeds of our leaders will be changed only if a group criticises and urges to stop these acts.

(71) In our present situation, it is not good to work individually because of the immensity of our problems. We need to cooperate and be united.

(76) The lack of wealth and power be equalled by a strong unity of the people.

(81) We can help others not only through money.

(86) There is no such thing as a heavy work all will give a helping hand.

(89) The plans of our leaders to improve our community will be realized easily if everyone will cooperate and help.

(92) Any heavy problem becomes easy to solve when everybody help

(95) The unity of the group is a power that can change undesirable situation into a peaceful transformation.

(97) Even if I lack material possessions, I am also prepared to help others.

(99) Everybody has his own knowledge gained from his own experiences and if these will be shared together, it can bring good results.

(101) We should strive to have a good relationship with our neighbours or the people in our community.

(103) In times of poverty and sufferings, the "light of change" rests in our hands.

(105) All of us are brothers and sisters because in Christ. It would be better if we help each other in improving our well-being.
Table 5.5. Some guiding points for the Informal Interview.

### 5.5.1 On Community Development

1. In your perspective, how can you say that a family or a community is progressive or developed? What does progress or development mean for you? Allow them to define community development - identify criteria of development.
2. In your assessment, how progressive or developed is your family? or our community?
3. What factors do you think contribute to the development or underdevelopment of a family? a community?
4. In your feeling are you content of the present situation. Why or why not?

Be more sensitive to their testimony or their explanations than their mere answer of yes or no.

5. Allow them to tell stories of their life - its successes or failures.
6. In your experience... what factors promote progress of their families or what factors constrain them?

In any case, (the interviewer) tries to sort out which factors are of family context, societal or environmental.

Ex: a general inadequacy of job opportunities in the country may pose difficulty in finding a job even for eligibles.

7. Let them share their dreams for the community as a barangay or as a community.

### 5.5.2 On Farming System

1. What is the main source of income
   a. non-agricultural
   b. agricultural - crops
   c. livestock.
2. Why did you settle in farming?
   - was it active choice? What reasons?
   - was it circumstantial? What factors?

3. Identify their system of farming in a general sense.
   (Example: monocropping, multiple cropping, range or confined rearing of chicken, tethering of goats)
4. Sense the possibility of changing the current practices or system of farming.
   Example: from monocropping to multiple cropping from mono-commodity farming to integrated farming.
5. Role of livestock in your farming system. (May include myths, stories, legends, beliefs.)
6. What are your aspirations related to farming? (May capture intention to quit or continue with it.)
7. Let them share their perceived constraints of farming.
Table 5.6.1. People’s criteria of community development.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>AREAS</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coastal</td>
<td>Upland</td>
<td>Low land</td>
</tr>
<tr>
<td></td>
<td>Frequency of Mention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good relationship with God.</td>
<td>2</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Good family and social relationship.</td>
<td>18</td>
<td>16</td>
<td>43</td>
</tr>
<tr>
<td>High agricultural production.</td>
<td>9</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>High household income.</td>
<td>17</td>
<td>14</td>
<td>94</td>
</tr>
<tr>
<td>High income of the government.</td>
<td>4</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Satisfaction of basic needs.</td>
<td>11</td>
<td>8</td>
<td>58</td>
</tr>
<tr>
<td>Good roads, bridges, electricity.</td>
<td>15</td>
<td>12</td>
<td>56</td>
</tr>
<tr>
<td>Good education of the people.</td>
<td>14</td>
<td>17</td>
<td>51</td>
</tr>
<tr>
<td>Improved commerce in the community.</td>
<td>11</td>
<td>10</td>
<td>37</td>
</tr>
<tr>
<td>Employment opportunities.</td>
<td>8</td>
<td>11</td>
<td>47</td>
</tr>
<tr>
<td>Unity of people and cooperativism.</td>
<td>16</td>
<td>16</td>
<td>54</td>
</tr>
<tr>
<td>Peace and order</td>
<td>14</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td><strong>TOTAL RESPONSES /PERCENT</strong></td>
<td>137</td>
<td>120</td>
<td>496</td>
</tr>
</tbody>
</table>

Table 5.6.2. An appraisal of community progress or development.

<table>
<thead>
<tr>
<th>RESPONSES</th>
<th>FREQUENCY OF MENTION</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coastal</td>
<td>Upland</td>
<td>Low-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>land</td>
</tr>
<tr>
<td>(To the question: Is our community developed?)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YES because of infrastructure projects</td>
<td>3</td>
<td>12</td>
<td>26</td>
</tr>
<tr>
<td>YES, I think so.</td>
<td>9</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>NO, not at all.</td>
<td>21</td>
<td>3</td>
<td>59</td>
</tr>
<tr>
<td>JUST ENOUGH</td>
<td>2</td>
<td>0</td>
<td>35</td>
</tr>
<tr>
<td>NOT SURE</td>
<td>5</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL RESPONSES</strong></td>
<td>40</td>
<td>35</td>
<td>205</td>
</tr>
</tbody>
</table>

320
Table 5.6.3. Factors contributing to community development.

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>FREQUENCY OF MENTION</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coastal</td>
<td>Upland</td>
<td>Lowland</td>
</tr>
<tr>
<td>Infrastructure projects</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Good government leadership</td>
<td>13</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>More government financial support</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>to the people</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industriousness and determination of the people</td>
<td>14</td>
<td>27</td>
<td>82</td>
</tr>
<tr>
<td>Motivation to develop</td>
<td>2</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Unity and cooperation</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Presence of job opportunities</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Other responses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Perseverance</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Fate/ Luck</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Ownership of lands</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL RESPONSES</td>
<td>250</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.6.4. Perceived development constraints.

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>FREQUENCY OF MENTION</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coastal</td>
<td>Upland</td>
<td>Lowland</td>
</tr>
<tr>
<td>Limited job opportunities</td>
<td>21</td>
<td>32</td>
<td>78</td>
</tr>
<tr>
<td>Lack of education</td>
<td>0</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Insurgency</td>
<td>3</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Laziness</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Fatalism: “bad luck”</td>
<td>8</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td>Faulty attitude of the people</td>
<td>0</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Lack of government support to agriculture production</td>
<td>10</td>
<td>4</td>
<td>38</td>
</tr>
<tr>
<td>Lack of market outlets</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Climatic factors</td>
<td>7</td>
<td>7</td>
<td>49</td>
</tr>
<tr>
<td>Poor source of income</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>High prices of farm inputs and low prices of farm outputs</td>
<td>9</td>
<td>2</td>
<td>38</td>
</tr>
<tr>
<td>Too much politics</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Corrupt officials</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Underutilization, abuse of resources</td>
<td>1</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Other responses 1) lack of unity</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) vices</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) poor parents</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) lack of capital and other resources</td>
<td>2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.6.5. Appraisal of being content of family situation.

<table>
<thead>
<tr>
<th>RESPONSES</th>
<th>FREQUENCY OF MENTION</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coastal</td>
<td>Upland</td>
<td>Lowland</td>
</tr>
<tr>
<td>YES</td>
<td>11</td>
<td>9</td>
<td>54</td>
</tr>
<tr>
<td>NO</td>
<td>23</td>
<td>35</td>
<td>119</td>
</tr>
<tr>
<td>NOT SURE</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL RESPONSES | 35      | 45     | 178     | 258     | 100     |

Table 5.6.6. Dreams for the community.

<table>
<thead>
<tr>
<th>DREAMS FOR THE COMMUNITY</th>
<th>FREQUENCY OF MENTION</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coastal</td>
<td>Upland</td>
<td>Lowland</td>
</tr>
<tr>
<td>Farm-to-market roads, market, irrigation, electricity</td>
<td>16</td>
<td>19</td>
<td>68</td>
</tr>
<tr>
<td>Improved quality of life of the people</td>
<td>6</td>
<td>15</td>
<td>64</td>
</tr>
<tr>
<td>High household income</td>
<td>11</td>
<td>11</td>
<td>50</td>
</tr>
<tr>
<td>Increased agricultural productivity</td>
<td>8</td>
<td>11</td>
<td>50</td>
</tr>
<tr>
<td>Good education</td>
<td>4</td>
<td>10</td>
<td>51</td>
</tr>
<tr>
<td>Satisfaction of basic needs</td>
<td>3</td>
<td>6</td>
<td>39</td>
</tr>
<tr>
<td>Cooperative development</td>
<td>8</td>
<td>7</td>
<td>29</td>
</tr>
<tr>
<td>Good relationship of the people in the community</td>
<td>0</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Government financial assistance</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Peace and order</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Employment opportunities</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Others:</td>
<td>14</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>grain house</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>capital</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>fishing cooperative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lessen gambling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>protect price of coconuts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>livelihood projects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>improve schools</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have Church</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TOTAL RESPONSES | 58      | 83     | 383     | 538     | 100.00  |
Table 5.7. 1. An outline of initial visions and plans (based from second workshop on change- from Group 1).

<table>
<thead>
<tr>
<th>VISIONS</th>
<th>PLANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Improvement of transportation so that farm products can be transported from the villages to the market.</td>
<td>1. Cooperate with the projects of the local government</td>
</tr>
<tr>
<td>* Build school buildings for the youth. Our schools in the villages are not in good conditions so we dream to at least have good schools.</td>
<td>2. The PTA, Parents Teachers Association can lead the initiatives in improving the school buildings.</td>
</tr>
<tr>
<td>* Develop vegetable gardens with plants that are adaptable to the locality.</td>
<td>3. Use deep well water for irrigation</td>
</tr>
<tr>
<td>* To at least minimise if not eradicate vices.</td>
<td>4. Continuous seminar on values formation</td>
</tr>
<tr>
<td></td>
<td>5. Disciplinary action.</td>
</tr>
</tbody>
</table>

Table 5.7. 2 An outline of initial visions and plans (based from second workshop on change- from Group 2).

<table>
<thead>
<tr>
<th>VISIONS</th>
<th>PLANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>* To have a progressive life</td>
<td>1. Organize and develop cooperatives - credit cooperatives - consumers cooperatives - multi-purpose cooperatives With the establishment of cooperatives we will learn how to be a good member with a good sense of responsibility and acquire some business skills like finding market outlets for our products.</td>
</tr>
<tr>
<td>* Increased rice production</td>
<td>2. solicit financial assistance from other countries like Australia</td>
</tr>
<tr>
<td>* To encourage growing of abaca because plant fiber commands a good price in the market.</td>
<td>3. Renew the management of NFA, National Food Authority</td>
</tr>
<tr>
<td></td>
<td>4. Invite some traders</td>
</tr>
</tbody>
</table>
Table 5.7. 3 An outline of initial visions and plans (based from second workshop on change- from Group 3).

<table>
<thead>
<tr>
<th>VISIONS</th>
<th>PLANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>* To improve the life situation</td>
<td>1. To establish an irrigation system</td>
</tr>
<tr>
<td>of farmers.</td>
<td>- cut a dredge canal through</td>
</tr>
<tr>
<td></td>
<td>the Sakayan Creek connecting to</td>
</tr>
<tr>
<td></td>
<td>the Cut-off Channel</td>
</tr>
<tr>
<td></td>
<td>. Construct “farm-to-market” roads.</td>
</tr>
<tr>
<td></td>
<td>* Put up some industrial firms to lessen unemployment in our community</td>
</tr>
<tr>
<td></td>
<td>- encourage big companies or corporations.</td>
</tr>
</tbody>
</table>

Table 5.7. 4 An outline of initial visions and plans (based from second workshop on change- from Group 4).

<table>
<thead>
<tr>
<th>VISIONS</th>
<th>PLANS</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Improve the life situation of the people</td>
<td>1. Improve transport and communication systems.</td>
</tr>
<tr>
<td>- with improved economic condition</td>
<td>- rural electrification</td>
</tr>
<tr>
<td>- with a wholesome leisure time</td>
<td>- barangay telephones</td>
</tr>
<tr>
<td>- with good communication system</td>
<td>- barangay roads</td>
</tr>
<tr>
<td></td>
<td>2. encourage livelihood projects</td>
</tr>
<tr>
<td></td>
<td>- fish culture</td>
</tr>
<tr>
<td></td>
<td>3. Establish barangay recreation centers</td>
</tr>
</tbody>
</table>
Table 5.7. 5 An outline of initial visions and plans (based from second workshop on change- from Group 5).

<table>
<thead>
<tr>
<th>VISIONS</th>
<th>PLANS</th>
</tr>
</thead>
</table>
| * Improve agriculture, education and peace and order. | 1. Lobby for a municipal resolution that will provide for the following:  
  - farm-to-market roads  
  - school buildings  
  2. Organize cooperatives  
  3. Encourage vocational courses and self-employment  
  4. Conduct formation seminars  
  - on self-worth  
  - on values. |

Table 5.7. 6 An outline of initial visions and plans (based from second workshop on change- from Group 6).

<table>
<thead>
<tr>
<th>VISIONS</th>
<th>PLANS</th>
</tr>
</thead>
</table>
| * To make San Fernando a city  
* Increase agricultural production  
* Improve transport facilities  
* Promote good health of the people  
* That the youth be partners in progress  
* Restore peace and order  
* Create decent jobs. | 1. On Education  
  - Put up a College and vocational school in our municipality  
  - conduct continuous adult education  
  2. On agriculture  
  - establish irrigation system and flood control  
  - full technical support  
  3. On infrastructure  
  - construct roads and bridges  
  - establish potable water system  
  - establish telephone system  
  4. On peace  
  - improve livelihood projects.  
  - strengthen cooperatives  
  - information education  
  5. On social relations  
  - minimise vices by controlling illegal gambling  
  - conduct continuous seminar on values formation. |
Table 5.8. The plans and goals of Coastal Barangay.

<table>
<thead>
<tr>
<th>Barangay Pinamasagan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLANS</strong></td>
</tr>
<tr>
<td>1. Establishment of Multi-purpose Cooperative</td>
</tr>
<tr>
<td>2. Construction of roads</td>
</tr>
<tr>
<td>3. Barangay electrification</td>
</tr>
<tr>
<td>4. Additional of elementary school teachers and</td>
</tr>
<tr>
<td>5. Establishment of a barangay high school.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barangay Bical</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLANS</strong></td>
</tr>
<tr>
<td>1. Improve livestock and poultry production</td>
</tr>
<tr>
<td>2. Construction of roads</td>
</tr>
<tr>
<td>3. Establishment of home industries</td>
</tr>
<tr>
<td>4. Rural electrification</td>
</tr>
<tr>
<td>5. Seminar-workshop on livestock and poultry production</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barangay Gnaran</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLANS</strong></td>
</tr>
<tr>
<td>1. Construction of roads</td>
</tr>
<tr>
<td>2. Rural electrification</td>
</tr>
<tr>
<td>3. To have a complete elementary school</td>
</tr>
<tr>
<td>4. Implementation of “Bantay Dagat”, a government program protecting the subsistence fishermen</td>
</tr>
</tbody>
</table>
Table 5.9. The plans and visions of Upland Barangays.

<table>
<thead>
<tr>
<th>Barangay Daculang Tubig</th>
<th>GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Organize a cooperative on copra trading</td>
<td>* Improve the economic condition of the people</td>
</tr>
<tr>
<td></td>
<td>* Good relations through cooperation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barangay Bocal</th>
<th>GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Construction of roads</td>
<td></td>
</tr>
<tr>
<td>2. Seminars on vegetable production</td>
<td>* Facilitate the transport of agricultural products</td>
</tr>
<tr>
<td></td>
<td>* Increase household income</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barangay Calascagas</th>
<th>GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improve poultry production</td>
<td>* Increase household income</td>
</tr>
<tr>
<td></td>
<td>* Alleviate undernourishment of children</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barangay Tagpocol</th>
<th>GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have seminar on “sumpay-buhay” or life saving</td>
<td>* Improve the health services for the people</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barangay Pipian</th>
<th>GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adult education</td>
<td></td>
</tr>
<tr>
<td>2. Vegetable and root crops raising</td>
<td>* improve literacy</td>
</tr>
<tr>
<td></td>
<td>* revitalise sense of cooperation</td>
</tr>
<tr>
<td></td>
<td>* food sufficiency</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barangay Marangi</th>
<th>GOALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organize a cooperative on copra trading</td>
<td>* strengthen the “bayanihan” spirit (or cooperation and collaboration)</td>
</tr>
<tr>
<td></td>
<td>* improve the marketing of copra</td>
</tr>
</tbody>
</table>
TOWARDS COMMUNITY DEVELOPMENT

Farming Systems Analysis

Virge N. Callo

{Name of Barangay}

Name of Household Head

Name of Interviewee

Relationship to HH

Agricultural Activities:

Rice Farming [ ] Poultry and livestock raising [ ]

Coconut Farming [ ]

Vegetable Raising [ ]

Rootcrops Raising [ ]

Pigs ( ) Chicken ( )

Carabaos ( ) Other poultry species ( )

Cattle ( )

1. ON RICE FARMING

1. Tenural status and farm area

Owner [ ] _______ hectares

owner- cultivator ( )

owner- non- cultivator ( )

Tenant [ ] _______ hectares

Leasehold [ ] _______ hectares

Mortgage [ ] _______ hectares

CLT [ ] _______ hectares

others, please specify [ ] _______ hectares

2. Number of years in farming _______
3. Seeds Used

High Yielding Varieties [ ]
Traditional Varieties [ ]

4. Latest use of traditional varieties [ about what year ________ ]

What traditional varieties ever used?

<table>
<thead>
<tr>
<th>Lowland Rice</th>
<th>Upland Rice</th>
</tr>
</thead>
<tbody>
<tr>
<td>FB</td>
<td>Asucena</td>
</tr>
<tr>
<td>Senador</td>
<td>Sampaguita</td>
</tr>
<tr>
<td>Bangbang</td>
<td>Tagpocoy</td>
</tr>
<tr>
<td>Elon-elon</td>
<td>Kalawlaw</td>
</tr>
<tr>
<td>Peta</td>
<td>Diamante</td>
</tr>
<tr>
<td>Maginsalay</td>
<td>Makalilong</td>
</tr>
<tr>
<td>Bursege</td>
<td>Magdami</td>
</tr>
<tr>
<td>Calubang</td>
<td>Pinutyukan</td>
</tr>
<tr>
<td>Baliburin</td>
<td>Dinurado</td>
</tr>
<tr>
<td>Kinabayo</td>
<td>others, please</td>
</tr>
<tr>
<td>others, please</td>
<td>specify ________</td>
</tr>
</tbody>
</table>

5. Comparative yield/hectare

High Yielding Variety ________ cavans
average weight of 1 cavan = ________

Traditional Variety ________ cavans
average weight of 1 cavan = ________

6. Historical record of yield (number of cavans /hectare)

<table>
<thead>
<tr>
<th>1991</th>
<th>1986</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>1985</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>1984</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>1983</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td>1982</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Possible causes of fluctuations in yield:(Pls. check & rank them)

infestation of pests [ ]
golden snail ( )
rats ( )
8. Perceived comparison of high yielding varieties and traditional varieties. (Check varieties corresponding to statements on the left)

**Observed Characteristics**

- Highly dependent on fertilizers
- Susceptible to pest and diseases
- Early maturing
- Good eating quality
- Better milling recovery
- Easy to harvest
- Better yield
- More expensive to care
- More profitable

If both are available, I would choose for my own...

Others, pls. specify

9. Power source:

- machine [ ]
- hand tractor ( )
- thresher ( )
- cattle [ ]
- carabaos [ ]
- animal-machine
- combination [ ]

If combination, at what activity is animal or machine power used?

<table>
<thead>
<tr>
<th>Carabao</th>
<th>Machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plowing</td>
<td></td>
</tr>
<tr>
<td>Paddling</td>
<td></td>
</tr>
<tr>
<td>Harrowing</td>
<td></td>
</tr>
</tbody>
</table>
10. When was machine earliest used in the farm? (about what year) ________

11. Reasons for use of machine:
   - can’t easily be stolen ( )
   - neighbor’s influence and advertisement effects ( )
   - no burden of pasturing ( )
   - easy and quick for farm work ( )
   - others, specify: __________________________ ( )

12. When is pest most prevalent? __________
   (stage of cropping)

13. Planting calendar

   J F M A M J J A S O N D

   Land preparation _____________________________
   Planting ___________________________________
   Harvesting _________________________________

   Intensity of cropping: __________

14. Source of water (Please check in calendar)

   J F M A M J J A S A N D

   Rain ( ) _________________________________
   Irrigation ( ) ____________________________
   Dam/Gravity ( ) __________________________

15. Household member participation in farm activities and decision making.

   ACTIVITIES
   Land preparation
   Transplanting
   Weeding
   Spraying

   HOUSEHOLD MEMBER
   Father   Mother   Son   Daughter   LABOR

   HIRED

331
Farm visit
Thresholding
Marketing
Decision making:
when to plant
where to market
what chemicals to use
Others, pls. specify

16. Average disposal of harvest (in cavans):
   Home Consumption
   For Sale
      for next cropping
      for previous loan
      for household needs
      others

17. Market outlet
   National Food Authority [ ] Rice Dealer Outside SF [ ]
   Rice Dealer in San Fernando [ ] Others, specify

18. Sources of inputs

a. Capital
   Savings ( )
   Loan from Banks ( )
   Loan from private individuals w/ interest ( )
   Loan from private individuals w/o interest ( )
   Loan from Cooperative ( )
   Mortgage ( )

b. Seeds
   From own farm ( )
   Other farmers ( )
   Department of Agriculture ( )
   Others, specify

c. Chemicals and fertilizers
   Agricultural supplies Dealer ( )
   Department of Agriculture ( )
   Others, specify

d. Labor
   Household member ( )
   Hired labor ( )
   "Honglon" or "bayanihan" ( )
19. Constraints of farming (Rank according to weight of burden)

<table>
<thead>
<tr>
<th>Constraint</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unavailability of seeds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expensive chemicals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stubborn pests (kohol)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparatively low</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>price of palay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unavailability of irrigation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others, specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20. Factors that can increase productivity

- Use of low-cost organic fertilizers [ ]
- Availability of irrigation systems/seeds [ ]
- Access to technical service [ ]
- Low-cost farm inputs [ ]
- Motivation factors:
  - high price of palay ( )
  - sure and stable market ( )
  - peace and order ( )
- Others, pls. specify [ ]


<table>
<thead>
<tr>
<th>Year</th>
<th>Hectares</th>
<th>Year</th>
<th>Hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td></td>
<td>1986</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
<td>1985</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td></td>
<td>1984</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td></td>
<td>1983</td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td></td>
<td>1982</td>
<td></td>
</tr>
</tbody>
</table>

22. Reason for change of hectarage.

1. sale/purchase of farm land [ ]
2. mortgage [ ]
3. insufficient capital [ ]
4. additional leased farm [ ]
5. failing health [ ]
6. peace and order situation [ ]
7. others, pls. specify

23. Other crops raised and months it is grown.

<table>
<thead>
<tr>
<th>Specify crops:</th>
<th>Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Planting - Harvesting)</td>
<td></td>
</tr>
<tr>
<td>___________</td>
<td>___________</td>
</tr>
<tr>
<td>___________</td>
<td>___________</td>
</tr>
</tbody>
</table>

24. With the current farming system, predict yield in in the succeeding years.

.... will be increasing [ ]
.... will be decreasing [ ]
.... will be the same [ ]

II. ON LIVESTOCK RAISING

25. Animal raised and its corresponding population

[ ] native chicken [ ] goats
[ ] other poultry sp. [ ] carabaos
[ ] pigs [ ] cattle

26. Reasons for raising animals

[ ] food source:
  eggs ___
  meat ___
  milk ___

[ ] additional source of income:
  for daily living ___
  for children’s education ___
  for clothes ___
  for housing ___
  others, pls. specify ___

[ ] draft:
  for own farm activities ___
  transport for neighbors farm products ___
  when hired for farm labor ___
[ ] others, specify ___

27. When is pest most prevalent (in month)

  in chicken & other poultry species ___
  in pigs ___
  in carabaos ___
  in goats ___
  in cattle ___

28. Number of years in animal raising
<table>
<thead>
<tr>
<th>native chicken</th>
<th>goats</th>
<th>other poultry sp.</th>
<th>carabaos</th>
<th>pigs</th>
<th>cattle</th>
</tr>
</thead>
</table>

29. Awareness and access to service for livestock production

If aware .......

<table>
<thead>
<tr>
<th></th>
<th>Not aware of</th>
<th>Aware of</th>
<th>Has availed of</th>
<th>Has not availed of</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Livestock inspector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Trainings on poultry and livestock production</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Development programs on poultry and livestock</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upgrading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vaccination</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Radio programs on Masagana 99</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others, pls. specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Dialogue with other animal raiser</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Lending institutions supporting animal production</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Dealer of agricultural supplies and veterinary products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

30. Factors that could help improve animal production

(Please check and rank them)

Rank

| 1. Credit facilities                 |              |          |
| 2. Trainings                         |              |          |
| 3. Immunization program              |              |          |
| 4. Regular visit of livestock inspector |              |          |
5. Sources of foundation stock [ ]
6. Availability of funds [ ]
7. Good site to animal production [ ]
8. Availability of feeds [ ]
9. Stable price of inputs and outputs [ ]
10. Others, pls. specify [ ]

31. Constraints of animal raising

- Fear of being stolen [ ]
- No space in the backyard [ ]
- No pasture [ ]
- Lack of technical know-how [ ]
- Prevalence of pest and diseases [ ]
- Lack of capital [ ]
- Unsure market [ ]
- Prohibitive price of feed, stock [ ]

( and other inputs) [ ]
Others, pls. specify [ ]

32. Adoption of management practices

<table>
<thead>
<tr>
<th>Of Goats</th>
<th>Adopting</th>
<th>Not adopting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tethering</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Confinement</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Cleaning of animal confinement</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Breeding</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Herding</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Giving of drinking water</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Weaning</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Use of mineral supplement</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Deworming</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Castration</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Use of concentrates</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Use of soilage</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Vaccination</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Milking</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Dehorning</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Marketing</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Cutting of hair</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Clipping of nails</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Culling/Selection</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
Of Native Chicken

Adopting  Not adopting

a. Methods of feeding
   1) broadcasting [ ] [ ]
   2) in the feeding trough [ ] [ ]
   3) combination [ ] [ ]

b. Frequency of feeding
   1) once in a day [ ] [ ]
   2) twice in a day [ ] [ ]
   3) not defined (only if feeds are available) [ ] [ ]

c. Kind of feeds
   1) kitchen waste [ ] [ ]
   2) rice midling [ ] [ ]
   3) rough rice [ ] [ ]
   4) milled rice [ ] [ ]
   5) commercially mixed feeds [ ] [ ]

d. Housing and Facilities
   1) complete housing [ ] [ ]
   2) nest [ ] [ ]
   3) roost (trees and rooftops) [ ] [ ]
   4) drinking facilities [ ] [ ]

e. Housing management
   1) chicken are loose during the day but housed in the evening [ ] [ ]
   2) chicken are placed in complete confinement [ ] [ ]
   3) chicken are sheltered under the house [ ] [ ]
   4) chicken are always loose [ ] [ ]

f. Health program
   1) vaccination [ ] [ ]
   2) deworming [ ] [ ]
   3) antibiotic feeding [ ] [ ]
   4) no medication at all [ ] [ ]

g. Marketing outlets
1) neighbors [ ] [ ]
2) middlemen [ ] [ ]
3) nearby market [ ] [ ]
4) family use [ ] [ ]

Of Pigs

a. Type of feeding
   1) wet feeding [ ] [ ]
   2) dry feeding [ ] [ ]

b. Type of feeds used
   1) Table slops [ ] [ ]
   2) Commercially mixed feeds [ ] [ ]
   3) Home-mixed feeds [ ] [ ]
   4) Rice Bran-Table slops [ ] [ ]
   5) Others, specify [ ] [ ]

   c. Housing management
      1) with housing [ ] [ ]
      2) tethering [ ] [ ]
      3) grazing [ ] [ ]

   4) sheltered under the house [ ] [ ]

d. Health program
   1) immunization [ ] [ ]
   2) deworming [ ] [ ]
   3) antibiotic feeding [ ] [ ]

e. Breeding and selection

f. Marketing through
   1) middlemen [ ] [ ]
   2) direct to consumers
      (slaughtered) [ ] [ ]
   3) meat shops [ ] [ ]

33. Sources of animals raised
34. Estimated annual income from livestock

Cash
Consumed meat ______ kg. ________ /cash equivalent
eggs ______ pcs. ________ /cash equivalent

Consumed

35. Research Priorities

(Let them share spontaneously what and/or use checklist from

For poultry

a. Breeding
Improvement/upgrading of indigenous poultry species
for egg and meat production
Collection, characterization and evaluation of
Philippine native chicken

b. Processing
Meat/egg processing technologies

b. Health care
Prevention and control of major poultry diseases
and parasites
Development and production of vaccines, bacterins
and antibiotics

c. Feeds/feeding management/nutrition

[d. Socio-economics
Market research
Assessment/evaluation of technology transfer
system
Policy formulation]
For Chevon/Mutton
a. Breeding and physiology
   Genetic conservation and improvement [ ] ___
   of indigenous breeds/strain of goat and sheep ___
   Studies on reproductive physiology [ ] ___

b. Socio-economics
   Economic size small ruminants production modules [ ] ___
   Market studies for small ruminants [ ] ___
   Policy formulation [ ] ___

c. Nutrition
   Grazing trials [ ] ___
   Studies on digestive physiology of small ruminants [ ] ___
   Silvi-pasture-small ruminants production system [ ] ___
   Establishment of nutrient requirement for small ruminants [ ] ___

36. Role of household members in livestock and poultry raising

   HOUSEHOLD MEMBERS       HIRED

   ACTIVITIES          Father  Mother  Son  Daughter  LABOR

   Feeding of:
   chicken   [ ]      ___  ___  _________  ___
   goats     [ ]      ___  ___  _________  ___
   pigs      [ ]      ___  ___  _________  ___
   Cleaning of pens [ ]      ___  ___  _________  ___

   Breeding
   chicken   [ ]      ___  ___  _________  ___
   goats     [ ]      ___  ___  _________  ___
   pigs      [ ]      ___  ___  _________  ___
Tethering

goats [ ]
pigs [ ]

Deworming of

crab [ ]
goats [ ]
pigs [ ]

Castration of

goats [ ]
pigs [ ]

III. ON COCONUT FARMING

37. Numbers of years in coconut farming

38. Coconut farm size (in has.) and tenural status:

owned

share-tenant

39. Estimated income/harvest

number of nuts

amount in pesos

40. Frequency of harvesting in a year

41. Calculated income in a month

a year

42. Possibility/acceptability of goats under coconuts.

Instruction: Below are statements about raising of goats under coconuts. You may agree or disagree with it... using the 5 scales of agreement.

1 - strongly disagree
<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximize use of farming labor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Would supplement income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source of meat for family or fiesta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has available feeds/pasture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If desired, can buy stock from neighbor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximize use of coconut farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatible with coconut</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy to take care of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase soil fertility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Might be stolen</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No ready market</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Might destroy other’s crops</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others, pls. specify</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

43. Estimated capacity of coconut farm for stocking (stocking rate)

number of goats _______ per hectare
number of cattle _______ per hectare
number of carabaos _______ per hectare

44. Identify pasture species in the coconut farm that can be fed to goats/cattle/carabaos

cogon ( ) others, specify: __________________
carabao grass ( )
Napier ( )
Role of household members in farm activities

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>Father</th>
<th>Mother</th>
<th>Son</th>
<th>Daughter</th>
<th>Hired Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reaping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gathering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dehusking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nut Cracking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking/Drying</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meat separation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sacking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hauling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.11. Evaluation of the questionnaire on Farming systems analysis.

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>WEIGHTED MEAN</th>
<th>INTERPRETATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clarity of the interview guide</td>
<td>4.01</td>
<td>Very Good</td>
</tr>
<tr>
<td>2. comprehensiveness of the content</td>
<td>4.00</td>
<td>Very Good</td>
</tr>
<tr>
<td>3. Relevance of the content</td>
<td>4.15</td>
<td>Very Good</td>
</tr>
<tr>
<td>4. Conciseness of the content</td>
<td>4.00</td>
<td>Very Good</td>
</tr>
<tr>
<td>5. Time required to finishing accomplishing the interview schedule</td>
<td>3.04</td>
<td>Very Good</td>
</tr>
</tbody>
</table>
Table 5.12.1. Agricultural activities of farmers-respondents.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>NO. OF respondents</th>
<th>AGRICULTURAL ACTIVITIES</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rice Farming</td>
<td>Coconut Farming</td>
<td>Rooterops/</td>
<td>Poultry and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
<td>Vegetable Raising</td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Coastal</td>
<td>48</td>
<td>10</td>
<td>20.83</td>
<td>29</td>
<td>60.42</td>
<td>24</td>
<td>50.00</td>
</tr>
<tr>
<td>Lowland</td>
<td>232</td>
<td>152</td>
<td>65.52</td>
<td>67</td>
<td>28.88</td>
<td>21</td>
<td>9.05</td>
</tr>
<tr>
<td>Upland</td>
<td>54</td>
<td>26</td>
<td>48.15</td>
<td>36</td>
<td>66.67</td>
<td>22</td>
<td>40.74</td>
</tr>
<tr>
<td>TOTAL</td>
<td>334</td>
<td>188</td>
<td>56.30</td>
<td>132</td>
<td>39.50</td>
<td>67</td>
<td>20.10</td>
</tr>
<tr>
<td>PERCENT</td>
<td></td>
<td></td>
<td>56.30</td>
<td>39.50</td>
<td></td>
<td>20.10</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.12.2. Distribution of farmer-respondents raising poultry and livestock.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>NO. OF respondents</th>
<th>ANIMAL SPECIES</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Chicken</td>
<td>Pigs</td>
<td>Carabao</td>
<td>Goats</td>
<td>Other poultry</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>Coastal</td>
<td>48</td>
<td>30</td>
<td>62.5</td>
<td>38</td>
<td>79.17</td>
<td>12</td>
<td>25.00</td>
</tr>
<tr>
<td>Lowland</td>
<td>232</td>
<td>113</td>
<td>48.71</td>
<td>125</td>
<td>53.88</td>
<td>58</td>
<td>25.00</td>
</tr>
<tr>
<td>Upland</td>
<td>54</td>
<td>43</td>
<td>79.63</td>
<td>29</td>
<td>53.70</td>
<td>17</td>
<td>31.48</td>
</tr>
<tr>
<td>TOTAL</td>
<td>334</td>
<td>186</td>
<td>55.7</td>
<td>192</td>
<td>57.5</td>
<td>87</td>
<td>26.00</td>
</tr>
<tr>
<td>PERCENT</td>
<td></td>
<td>55.7</td>
<td>57.5</td>
<td>26.00</td>
<td>5.10</td>
<td>9.60</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.12.3. Tenural status and farm area.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>NO. OF respondents</th>
<th>TENURAL STATUS AND FARM AREA</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Owned</td>
<td>Tenanted</td>
<td>Leased</td>
<td>Mortgaged</td>
<td>with CLT, Certificate of Land Transfer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>NO.</td>
</tr>
<tr>
<td>Coastal</td>
<td>3</td>
<td>4</td>
<td>0.3</td>
<td>2</td>
<td>0.4</td>
<td>1</td>
</tr>
<tr>
<td>Lowland</td>
<td>72</td>
<td>1.04</td>
<td>63</td>
<td>1.15</td>
<td>9</td>
<td>1.1</td>
</tr>
<tr>
<td>Upland</td>
<td>10</td>
<td>0.7</td>
<td>7</td>
<td>0.5</td>
<td>4</td>
<td>0.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>85</td>
<td>74</td>
<td>15</td>
<td>13</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>MEAN AREA</td>
<td>0.96</td>
<td>0.91</td>
<td>0.60</td>
<td>0.73</td>
<td>1.31</td>
<td></td>
</tr>
</tbody>
</table>
Area¹ - expressed as mean area in hectares.

Table 5.12. 4. Number of years in rice farming.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>1-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16-20</th>
<th>21-25</th>
<th>26-30</th>
<th>31-35</th>
<th>36-40</th>
<th>41-45</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Lowland</td>
<td>26</td>
<td>24</td>
<td>19</td>
<td>19</td>
<td>12</td>
<td>10</td>
<td>15</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Upland</td>
<td>8</td>
<td>6</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>37</td>
<td>31</td>
<td>21</td>
<td>24</td>
<td>15</td>
<td>11</td>
<td>19</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>= 175</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PERCENT:

<table>
<thead>
<tr>
<th>PERCENT</th>
<th>21.14</th>
<th>17.71</th>
<th>12.00</th>
<th>13.71</th>
<th>8.57</th>
<th>6.28</th>
<th>10.86</th>
<th>6.28</th>
<th>3.42</th>
</tr>
</thead>
</table>

MEAN no. of years = 15.7

Table 5.12. 5. Types of seeds used.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>TYPE OF SEEDS USED</th>
<th>No. of Farmers</th>
<th>Percent</th>
<th>No. of Farmers</th>
<th>Percent</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High-Yielding Varieties</td>
<td></td>
<td></td>
<td>Traditional Varieties</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coastal</td>
<td></td>
<td>7</td>
<td>3</td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Lowland</td>
<td></td>
<td>151</td>
<td>23</td>
<td></td>
<td></td>
<td>174</td>
</tr>
<tr>
<td>Upland</td>
<td></td>
<td>20</td>
<td>12</td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>178</td>
<td>38</td>
<td></td>
<td></td>
<td>216</td>
</tr>
</tbody>
</table>

PERCENT:

| PERCENT | 82.4 | 17.6 | 100 |

346
Table 5.12. 6a. Traditional varieties used in the lowland culture.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>FB</th>
<th>S</th>
<th>Bb</th>
<th>Ee</th>
<th>P</th>
<th>M</th>
<th>Bu</th>
<th>C</th>
<th>Ba</th>
<th>K</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowland</td>
<td>3</td>
<td>48</td>
<td>13</td>
<td>11</td>
<td>14</td>
<td>15</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Upland</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>5</td>
<td>55</td>
<td>15</td>
<td>12</td>
<td>14</td>
<td>15</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>132</td>
</tr>
<tr>
<td>PERCENT</td>
<td>3.8</td>
<td>41.7</td>
<td>11.4</td>
<td>9.1</td>
<td>10.6</td>
<td>11.4</td>
<td>5.3</td>
<td>2.3</td>
<td>1.5</td>
<td>3.0</td>
<td>100</td>
</tr>
</tbody>
</table>

Legend:

FB - FB  
S - Senator  
Bb - Bangbang  
Ee - Elon-eloin  
P - Peta  
M - Maginsalay  
Bu - Bursege  
C - Calubang  
Ba - Balibun  
K - Kinabayo

Table 5.12. 6b. Traditional varieties used in the upland culture.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>A</th>
<th>S</th>
<th>T</th>
<th>K</th>
<th>De</th>
<th>Mg</th>
<th>Mi</th>
<th>P</th>
<th>Do</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lowland</td>
<td></td>
<td>11</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Upland</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1</td>
<td>15</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>PERCENT</td>
<td>5.26</td>
<td>78.95</td>
<td>10.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Legend:

A - Asucena  
S - Sampaguita  
T - Tagpocoy  
De - Diamante  
K - Kalawlaw  
Mg - Makalilong  
Mi - Magdami  
P - Pinutyukan  
Do - Dinurado
Table 5.12. 7. Perceived comparison between modern and traditional varieties.

<table>
<thead>
<tr>
<th>OBSERVED CHARACTERISTICS</th>
<th>AREAS</th>
<th>Coastal</th>
<th>Upland</th>
<th>Lowland</th>
<th>Total</th>
<th>GRAND TOTAL</th>
<th>PERCENT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>High dependent on fertilizers</td>
<td>MV</td>
<td>4</td>
<td>13</td>
<td>92</td>
<td>109</td>
<td></td>
<td>99.1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td>1</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
<td>110</td>
<td>100</td>
</tr>
<tr>
<td>Susceptible to pests and diseases</td>
<td>MV</td>
<td>1</td>
<td>12</td>
<td>57</td>
<td>70</td>
<td></td>
<td>72.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>3</td>
<td>24</td>
<td>27</td>
<td>70</td>
<td></td>
<td>27.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>110</td>
<td>100</td>
</tr>
<tr>
<td>Early maturing</td>
<td>MV</td>
<td>5</td>
<td>15</td>
<td>80</td>
<td>100</td>
<td></td>
<td>88.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>2</td>
<td>11</td>
<td>13</td>
<td>13</td>
<td></td>
<td>11.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>97</td>
<td>100</td>
</tr>
<tr>
<td>Good eating quality</td>
<td>MV</td>
<td>2</td>
<td>4</td>
<td>41</td>
<td>47</td>
<td></td>
<td>63.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>1</td>
<td>7</td>
<td>19</td>
<td>27</td>
<td></td>
<td>36.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>47</td>
<td>100</td>
</tr>
<tr>
<td>Better milling recovery</td>
<td>MV</td>
<td>3</td>
<td>5</td>
<td>27</td>
<td>35</td>
<td></td>
<td>37.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>7</td>
<td>52</td>
<td>59</td>
<td>64</td>
<td></td>
<td>62.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>94</td>
<td>100</td>
</tr>
<tr>
<td>Easy to harvest</td>
<td>MV</td>
<td>5</td>
<td>13</td>
<td>87</td>
<td>105</td>
<td></td>
<td>94.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6</td>
<td></td>
<td>5.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>61</td>
<td>100</td>
</tr>
<tr>
<td>Better yield</td>
<td>MV</td>
<td>3</td>
<td>13</td>
<td>78</td>
<td>94</td>
<td></td>
<td>94.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>6</td>
<td>6</td>
<td></td>
<td>6</td>
<td></td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>More expensive to care</td>
<td>MV</td>
<td>3</td>
<td>13</td>
<td>85</td>
<td>101</td>
<td></td>
<td>93.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>7</td>
<td>7</td>
<td></td>
<td>7</td>
<td></td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>108</td>
<td>100</td>
</tr>
<tr>
<td>More profitable</td>
<td>MV</td>
<td>3</td>
<td>12</td>
<td>72</td>
<td>87</td>
<td></td>
<td>92.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>7</td>
<td>7</td>
<td></td>
<td>7</td>
<td></td>
<td>7.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>94</td>
<td>100</td>
</tr>
<tr>
<td>“If both are available, I would choose for my own”</td>
<td>MV</td>
<td>4</td>
<td>7</td>
<td>17</td>
<td>28</td>
<td></td>
<td>93.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TV</td>
<td>2</td>
<td>2</td>
<td></td>
<td>2</td>
<td></td>
<td>6.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td>100</td>
</tr>
</tbody>
</table>

Legend: MV - Modern Varieties
TV - Traditional Varieties
TS - The Same
Table 5.12. 8. Historical record of yield (in number of cavans* per hectare).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YEAR-PERIOD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Average Number of Cavans per hectare</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coastal</td>
<td>64</td>
<td>67</td>
<td>67</td>
<td>70</td>
<td>71</td>
<td>70</td>
<td>75</td>
<td>75</td>
<td>76</td>
<td>81</td>
</tr>
<tr>
<td>Lowland</td>
<td>42</td>
<td>54</td>
<td>56</td>
<td>59</td>
<td>52</td>
<td>51</td>
<td>62</td>
<td>62</td>
<td>61</td>
<td>64</td>
</tr>
<tr>
<td>GRAND MEAN</td>
<td>59</td>
<td>64</td>
<td>65</td>
<td>67</td>
<td>67</td>
<td>66</td>
<td>72</td>
<td>72</td>
<td>73</td>
<td>77</td>
</tr>
</tbody>
</table>

Table 5.12. 9. Farmers’ forecast of rice yield in the succeeding years.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>will be increasing</th>
<th>will be decreasing</th>
<th>will be the same</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Farmers predicting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Percent</td>
<td>50</td>
<td>25</td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>58</td>
<td>39</td>
<td>43</td>
<td>140</td>
</tr>
<tr>
<td>Percent</td>
<td>41.43</td>
<td>27.86</td>
<td>30.71</td>
<td>100</td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>1</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>Percent</td>
<td>41.18</td>
<td>5.88</td>
<td>52.94</td>
<td>100</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>67</td>
<td>41</td>
<td>53</td>
<td>161</td>
</tr>
<tr>
<td>PERCENT</td>
<td>41.61</td>
<td>25.47</td>
<td>32.93</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 5.12. 10. Causes of fluctuations in yield.

<table>
<thead>
<tr>
<th>AREAS/ Barangays</th>
<th>Golden Snail</th>
<th>Diseases</th>
<th>CAUSES</th>
<th>Drought</th>
<th>Floods</th>
<th>Typhoons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bical</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Cotmo</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Ghanan</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pinamasagan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alianza</td>
<td>2</td>
<td></td>
<td>1</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Beberon</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Bonifacio</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Buenavista</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Del Pilar</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Grijalvo</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Lapi</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Pamukid</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>5</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Planza</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Rizal</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>San Joaquin</td>
<td>1</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bocal</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Calascagas</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Daculang Tubig</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maragni</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Pipian</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>23</td>
<td>67</td>
<td>41</td>
<td>55</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>MEAN RANK</td>
<td>1.2</td>
<td>4.2</td>
<td>2.4</td>
<td>3.4</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>FINAL RANK</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
Table 5.12. 11. Historical record of area cultivated for rice (expressed in average number of hectares per household).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>YEAR-PERIOD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3.5</td>
</tr>
<tr>
<td>Average</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>0.67</td>
<td>1.0</td>
<td>1.17</td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td>1.21</td>
<td>1.21</td>
<td>1.20</td>
<td>1.20</td>
<td>1.20</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.01</td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.1</td>
<td>8.1</td>
<td>8.1</td>
<td>8.1</td>
<td>8.1</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
<td>9.45</td>
</tr>
<tr>
<td>Average</td>
<td>1.17</td>
<td>1.17</td>
<td>1.16</td>
<td>1.16</td>
<td>1.16</td>
<td>1.1</td>
<td>1.06</td>
<td>1.06</td>
<td>1.17</td>
<td>1.35</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>24.61</td>
<td>24.61</td>
<td>24.50</td>
<td>24.50</td>
<td>24.50</td>
<td>22.08</td>
<td>21.48</td>
<td>21.48</td>
<td>22.48</td>
<td>25.01</td>
</tr>
<tr>
<td>GRAND AVERAGE</td>
<td>1.17</td>
<td>1.17</td>
<td>1.16</td>
<td>1.16</td>
<td>1.16</td>
<td>1.10</td>
<td>1.06</td>
<td>1.06</td>
<td>1.17</td>
<td>1.35</td>
</tr>
</tbody>
</table>

Table 5.12. 12. Household-member participation in farm activities.

<table>
<thead>
<tr>
<th>AREAS/</th>
<th>FARM ACTIVITIES</th>
<th>TO-</th>
<th>PER-</th>
</tr>
</thead>
<tbody>
<tr>
<td>House hold</td>
<td>Land preparation</td>
<td>Land</td>
<td>Trans</td>
</tr>
<tr>
<td>members</td>
<td></td>
<td>ing</td>
<td></td>
</tr>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>8</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Mother</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Son</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Daughter</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hired Labor</td>
<td>2</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>103</td>
<td>53</td>
<td>69</td>
</tr>
<tr>
<td>Mother</td>
<td>5</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>Son</td>
<td>21</td>
<td>21</td>
<td>30</td>
</tr>
<tr>
<td>Daughter</td>
<td>0</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Hired Labor</td>
<td>64</td>
<td>104</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>193</td>
<td>204</td>
<td>197</td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>20</td>
<td>16</td>
<td>22</td>
</tr>
<tr>
<td>Mother</td>
<td>0</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Son</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Daughter</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Hired Labor</td>
<td>9</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>37</td>
<td>43</td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>237</td>
<td>251</td>
<td>253</td>
</tr>
<tr>
<td>PERCENT</td>
<td>11.06</td>
<td>11.72</td>
<td>11.8</td>
</tr>
</tbody>
</table>
Table 5.12. 13. Average population of animals raised per household.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>NUMBER OF HOUSEHOLDS</th>
<th>NUMBER OF ANIMALS RAISED</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Native Chicken</td>
</tr>
<tr>
<td>Coastal</td>
<td>48</td>
<td>224</td>
</tr>
<tr>
<td>Lowland</td>
<td>232</td>
<td>822</td>
</tr>
<tr>
<td>Upland</td>
<td>54</td>
<td>349</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>334</strong></td>
<td><strong>1395</strong></td>
</tr>
</tbody>
</table>

Average number of animals per household:

|         | 4 | 1 | 1 | 0.16 | 0.45 |

Table 5.12. 14. Reasons for raising animals.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>FOOD SOURCE</th>
<th>ADDITIONAL INCOME</th>
<th>DRAFT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Eggs</td>
<td>Meat</td>
<td>Milk</td>
</tr>
<tr>
<td>Coastal</td>
<td>20</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Lowland</td>
<td>83</td>
<td>103</td>
<td>1</td>
</tr>
<tr>
<td>Upland</td>
<td>41</td>
<td>40</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>144</td>
<td>154</td>
<td>3</td>
</tr>
<tr>
<td><strong>PERCENT</strong></td>
<td>47.8</td>
<td>51.2</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>301</td>
<td>415</td>
<td>151</td>
</tr>
<tr>
<td><strong>% OF GRAND TOTAL</strong></td>
<td>34.7</td>
<td>47.9</td>
<td>17.4</td>
</tr>
</tbody>
</table>

Legend:

**Additional Source of Income**: a - for daily living; b - for education; c - for clothes; d - for housing.

**For Draft**: a - for own farm activity; b - transport for neighbors' farm products; c - when hired as farm laborer.
Table 5.12. 15. Awareness and access to services for livestock production.

<table>
<thead>
<tr>
<th>SERVICES</th>
<th>Not Aware of</th>
<th>Aware of</th>
<th>Total</th>
<th>Aware and has availed of</th>
<th>Aware but has not availed of</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Livestock inspection.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of Total</td>
<td>36</td>
<td>145</td>
<td>228</td>
<td>25</td>
<td>120</td>
<td>145</td>
</tr>
<tr>
<td>2. Trainings on poultry and livestock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of Total</td>
<td>36</td>
<td>64</td>
<td>100</td>
<td>17</td>
<td>83</td>
<td>100</td>
</tr>
<tr>
<td>3. Development programs:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) upgrading</td>
<td>89</td>
<td>150</td>
<td>239</td>
<td>21</td>
<td>129</td>
<td>150</td>
</tr>
<tr>
<td>Percent of Total</td>
<td>37</td>
<td>63</td>
<td>100</td>
<td>14</td>
<td>86</td>
<td>100</td>
</tr>
<tr>
<td>b) vaccination</td>
<td>62</td>
<td>108</td>
<td>170</td>
<td>27</td>
<td>81</td>
<td>108</td>
</tr>
<tr>
<td>Percent of Total</td>
<td>36</td>
<td>64</td>
<td>100</td>
<td>25</td>
<td>75</td>
<td>100</td>
</tr>
<tr>
<td>4. Radio Programs (Masagana 99)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of Total</td>
<td>96</td>
<td>102</td>
<td>198</td>
<td>30</td>
<td>72</td>
<td>102</td>
</tr>
<tr>
<td>5. Dialogue with animal raisers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of Total</td>
<td>48</td>
<td>52</td>
<td>100</td>
<td>29</td>
<td>71</td>
<td>100</td>
</tr>
<tr>
<td>6. Lending institutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of Total</td>
<td>35</td>
<td>65</td>
<td>100</td>
<td>44</td>
<td>56</td>
<td>100</td>
</tr>
<tr>
<td>7. Dealers of agricultural products.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent of Total</td>
<td>63</td>
<td>37</td>
<td>100</td>
<td>14</td>
<td>86</td>
<td>100</td>
</tr>
<tr>
<td>TOTAL</td>
<td>707</td>
<td>1033</td>
<td>1740</td>
<td>221</td>
<td>812</td>
<td>1033</td>
</tr>
<tr>
<td>PERCENT</td>
<td>40.6</td>
<td>59.4</td>
<td>100</td>
<td>21.4</td>
<td>78.6</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 5.12. 16. Number of years in raising animals.

<table>
<thead>
<tr>
<th>ANIMALS</th>
<th>1-5</th>
<th>6-10</th>
<th>11-16</th>
<th>17-20</th>
<th>21-25</th>
<th>26-30</th>
<th>31-35</th>
<th>36-40</th>
<th>41-45</th>
<th>46-50</th>
<th>51-55</th>
<th>56-60</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHICKEN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>23</td>
<td>20</td>
<td>26</td>
<td>12</td>
<td>31</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Percent</td>
<td>27.1</td>
<td>13</td>
<td>11.3</td>
<td>14.7</td>
<td>6.8</td>
<td>17.5</td>
<td>4</td>
<td>2.3</td>
<td>2.8</td>
<td>0.6</td>
<td>0</td>
<td>0</td>
<td>0.04</td>
</tr>
<tr>
<td>MEAN = 16 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIGS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
<td>13</td>
<td>10</td>
<td>27</td>
<td>7</td>
<td>25</td>
<td>11</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>151</td>
</tr>
<tr>
<td>Percent</td>
<td>34.4</td>
<td>8.6</td>
<td>6.6</td>
<td>17.9</td>
<td>6.7</td>
<td>16.6</td>
<td>7.3</td>
<td>2.0</td>
<td>1.3</td>
<td>0.7</td>
<td>0</td>
<td>0</td>
<td>15.6</td>
</tr>
<tr>
<td>MEAN = 15.6 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CARABAOs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>10</td>
<td>7</td>
<td>10</td>
<td>6</td>
<td>4</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>69</td>
</tr>
<tr>
<td>Percent</td>
<td>30.4</td>
<td>14.5</td>
<td>10.1</td>
<td>14.5</td>
<td>7.2</td>
<td>8.7</td>
<td>5.8</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>MEAN = 15 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

353
Table 5.12. 17. Perceived constraints of animal raising.

<table>
<thead>
<tr>
<th>AREAS/BARANGAYS</th>
<th>CONSTRAINTS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fear of being stolen</td>
<td>Has no space</td>
</tr>
<tr>
<td>COASTAL</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>LOWLAND</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>UPLAND</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>MEAN RANK</td>
<td>3.95</td>
<td>4.56</td>
</tr>
<tr>
<td>FINAL RANK</td>
<td>3</td>
<td>7</td>
</tr>
</tbody>
</table>
Table 5.12. 18. Factors that could help improve animal production

<table>
<thead>
<tr>
<th>AREAS/ Barangays</th>
<th>Credit</th>
<th>Training</th>
<th>Immunization</th>
<th>Livestock inspection</th>
<th>Foundation stock</th>
<th>Funds</th>
<th>Good site</th>
<th>Feeds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>R a n k</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bical</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Cotmo</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>1</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Gnaran</td>
<td>6</td>
<td>2</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Pinamasagan</td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>LOWLAND</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alianza</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>7</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Beberon</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td>1</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Bonifacio</td>
<td>8</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Buenavista</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>7</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Del Pilar</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Grijalvo</td>
<td>4</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Lupi</td>
<td>5</td>
<td>7</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Pamukid</td>
<td>8</td>
<td>1</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Planza</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Rizal</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>8</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td><strong>UPLAND</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bocal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calascagas</td>
<td>2</td>
<td>5</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Daculang Tubig</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Maragni</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Pipian</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Tagpocol</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>1</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td><strong>MEAN RANK</strong></td>
<td>4.71</td>
<td>3.9</td>
<td>4.95</td>
<td>5.42</td>
<td>5.29</td>
<td>3</td>
<td>4</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>FINAL RANK</strong></td>
<td>5</td>
<td>2</td>
<td>6</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 5.12. 19. Sources of animals raised.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>Progeny</th>
<th>Gifts</th>
<th>&quot;Ataman&quot;</th>
<th>Neighbors</th>
<th>Commercial Farms</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal</td>
<td>5</td>
<td>5</td>
<td>3</td>
<td>19</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Lowland</td>
<td>17</td>
<td>19</td>
<td></td>
<td>64</td>
<td>41</td>
<td>58</td>
</tr>
<tr>
<td>Upland</td>
<td>8</td>
<td>6</td>
<td>1</td>
<td>19</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>30</td>
<td>30</td>
<td>4</td>
<td>102</td>
<td>58</td>
<td>224</td>
</tr>
<tr>
<td><strong>PERCENT</strong></td>
<td>13.4</td>
<td>13.4</td>
<td>1.8</td>
<td>45.5</td>
<td>25.9</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 5.12. Farmers’ management practices: in native chicken.

<table>
<thead>
<tr>
<th>MANAGEMENT PRACTICES</th>
<th>Coastal</th>
<th>AREAS</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lowland</td>
<td>Upland</td>
<td></td>
</tr>
<tr>
<td><strong>Methods of Feeding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. broadcasting</td>
<td>7</td>
<td>57</td>
<td>22</td>
<td>86</td>
</tr>
<tr>
<td>2. in feeding troughs</td>
<td>0</td>
<td>19</td>
<td>5</td>
<td>24</td>
</tr>
<tr>
<td>3. combination</td>
<td>25</td>
<td>11</td>
<td>8</td>
<td>44</td>
</tr>
<tr>
<td>Total</td>
<td>54</td>
<td>99</td>
<td>38</td>
<td>141</td>
</tr>
<tr>
<td><strong>Frequency of Feeding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. once a day</td>
<td>4</td>
<td>13</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>2. twice a day</td>
<td>17</td>
<td>73</td>
<td>21</td>
<td>111</td>
</tr>
<tr>
<td>3. not defined</td>
<td>10</td>
<td>14</td>
<td>13</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>100</td>
<td></td>
<td>174</td>
</tr>
<tr>
<td><strong>Kinds of Feeds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. kitchen waste</td>
<td>4</td>
<td>16</td>
<td>21</td>
<td>41</td>
</tr>
<tr>
<td>2. rice middlings</td>
<td>1</td>
<td>25</td>
<td>16</td>
<td>42</td>
</tr>
<tr>
<td>3. rough rice</td>
<td>1</td>
<td>69</td>
<td>32</td>
<td>102</td>
</tr>
<tr>
<td>4. milled rice</td>
<td>5</td>
<td>15</td>
<td>22</td>
<td>42</td>
</tr>
<tr>
<td>5. commercial mix</td>
<td>5</td>
<td>13</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>24</td>
<td>100</td>
<td></td>
<td>248</td>
</tr>
<tr>
<td><strong>Housing and Facilities</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. complete housing</td>
<td>5</td>
<td>16</td>
<td>13</td>
<td>34</td>
</tr>
<tr>
<td>2. nests</td>
<td>3</td>
<td>25</td>
<td>17</td>
<td>45</td>
</tr>
<tr>
<td>3. roosts</td>
<td>20</td>
<td>54</td>
<td>25</td>
<td>99</td>
</tr>
<tr>
<td>4. drinking facilities</td>
<td>4</td>
<td>12</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>100</td>
<td></td>
<td>195</td>
</tr>
<tr>
<td><strong>Housing Management</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. chicken are loose during the day,</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>housed in the evening</td>
<td>8</td>
<td>27</td>
<td>12</td>
<td>47</td>
</tr>
<tr>
<td>2. chicken are placed in complete</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>confinement</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>3. chicken are sheltered under the house</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>11</td>
<td>3</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>4. chicken are always loose.</td>
<td>12</td>
<td>54</td>
<td>23</td>
<td>89</td>
</tr>
<tr>
<td>Total</td>
<td>156</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Health Program</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. vaccination</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>2. deworming</td>
<td>3</td>
<td>14</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>3. antibiotic feeding</td>
<td>11</td>
<td>40</td>
<td>11</td>
<td>62</td>
</tr>
<tr>
<td>4. no medication at all</td>
<td>26</td>
<td>56</td>
<td>32</td>
<td>114</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td><strong>Marketing Outlets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. neighbours</td>
<td>3</td>
<td>9</td>
<td>11</td>
<td>23</td>
</tr>
<tr>
<td>2. middlemen</td>
<td>6</td>
<td>21</td>
<td>5</td>
<td>32</td>
</tr>
<tr>
<td>3. nearby market</td>
<td>17</td>
<td>15</td>
<td>7</td>
<td>39</td>
</tr>
<tr>
<td>4. family consumption</td>
<td>4</td>
<td>44</td>
<td>37</td>
<td>85</td>
</tr>
<tr>
<td>Total</td>
<td>179</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

356
Table 5.12. 20b. Farmers’ management practices: in pigs

<table>
<thead>
<tr>
<th>MANAGEMENT PRACTICES</th>
<th>Coastal</th>
<th>AREAS</th>
<th>Upland</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lowland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Methods of Feeding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. wet feeding</td>
<td>38</td>
<td>98</td>
<td>21</td>
<td>157</td>
<td>75.1</td>
</tr>
<tr>
<td>2. dry feeding</td>
<td>0</td>
<td>44</td>
<td>8</td>
<td>52</td>
<td>24.9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>142</td>
<td>29</td>
<td>171</td>
<td>100</td>
</tr>
<tr>
<td>Type of Feeds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. table slops</td>
<td>18</td>
<td>42</td>
<td>20</td>
<td>80</td>
<td>26.3</td>
</tr>
<tr>
<td>2. commercial mix</td>
<td>4</td>
<td>28</td>
<td>4</td>
<td>36</td>
<td>11.8</td>
</tr>
<tr>
<td>3. home-mix</td>
<td>16</td>
<td>25</td>
<td>16</td>
<td>107</td>
<td>35.2</td>
</tr>
<tr>
<td>4. rice bran -and - table slops</td>
<td>16</td>
<td>75</td>
<td>16</td>
<td>107</td>
<td>35.2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>304</td>
<td>145</td>
<td>449</td>
<td>100</td>
</tr>
<tr>
<td>Housing Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. with housing</td>
<td>28</td>
<td>111</td>
<td>17</td>
<td>156</td>
<td>75.4</td>
</tr>
<tr>
<td>2. tethering</td>
<td>10</td>
<td>8</td>
<td>12</td>
<td>30</td>
<td>14.5</td>
</tr>
<tr>
<td>3. grazing</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td>4. under the house</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>14</td>
<td>6.8</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>207</td>
<td>145</td>
<td>352</td>
<td>100</td>
</tr>
<tr>
<td>Health Program</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. immunization</td>
<td>0</td>
<td>49</td>
<td>5</td>
<td>54</td>
<td>28.1</td>
</tr>
<tr>
<td>2. deworming</td>
<td>16</td>
<td>90</td>
<td>14</td>
<td>120</td>
<td>62.5</td>
</tr>
<tr>
<td>3. antibiotic feeding</td>
<td>16</td>
<td>84</td>
<td>14</td>
<td>114</td>
<td>59.4</td>
</tr>
<tr>
<td>4. no medication at all</td>
<td>22</td>
<td>35</td>
<td>15</td>
<td>72</td>
<td>37.5</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>192</td>
<td>145</td>
<td>337</td>
<td>100</td>
</tr>
<tr>
<td>Breeding and Selection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>adopting</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>not adopting</td>
<td>35</td>
<td>124</td>
<td>29</td>
<td>188</td>
<td>98.9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>190</td>
<td>145</td>
<td>335</td>
<td>100</td>
</tr>
<tr>
<td>Marketing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. middlemen</td>
<td>14</td>
<td>65</td>
<td>13</td>
<td>92</td>
<td>48.9</td>
</tr>
<tr>
<td>2. direct to consumers</td>
<td>12</td>
<td>46</td>
<td>11</td>
<td>69</td>
<td>36.7</td>
</tr>
<tr>
<td>3. meat shops</td>
<td>13</td>
<td>10</td>
<td>4</td>
<td>27</td>
<td>14.4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>188</td>
<td>145</td>
<td>333</td>
<td>100</td>
</tr>
<tr>
<td>MANAGEMENT PRACTICES</td>
<td>Coastal</td>
<td>AREAS</td>
<td></td>
<td>Total</td>
<td>Percent</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>---------</td>
<td>-------</td>
<td>------------</td>
<td>-------</td>
<td>---------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lowland</td>
<td>Upland</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Housing management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. tethering</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>2. confinement</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Breeding: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>9</td>
<td>56.2</td>
</tr>
<tr>
<td>not adopting</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>43.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Herding: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>4</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>37.5</td>
</tr>
<tr>
<td>not adopting</td>
<td>0</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td>62.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Giving of water: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td>not adopting</td>
<td>3</td>
<td>7</td>
<td>3</td>
<td>13</td>
<td>81.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Weaning: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>not adopting</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>14</td>
<td>87.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Mineral supplementation: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>not adopting</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>14</td>
<td>87.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Deworming: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>not adopting</td>
<td>3</td>
<td>6</td>
<td>3</td>
<td>12</td>
<td>75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Castration: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>5</td>
<td>18.8</td>
</tr>
<tr>
<td>not adopting</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td>11</td>
<td>81.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Use of concentrates: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>not adopting</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>14</td>
<td>87.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Vaccination: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>not adopting</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Milking: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>not adopting</td>
<td>4</td>
<td>8</td>
<td>4</td>
<td>16</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Dehorning: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>not adopting</td>
<td>4</td>
<td>7</td>
<td>3</td>
<td>14</td>
<td>87.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Marketing: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>9</td>
<td>56.2</td>
</tr>
<tr>
<td>not adopting</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>7</td>
<td>43.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>Culling and selection: adopting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not adopting</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td>not adopting</td>
<td>4</td>
<td>6</td>
<td>3</td>
<td>13</td>
<td>81.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>16</strong></td>
<td><strong>52</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Table 5.12. 21. Average annual income per household from animal production.

<table>
<thead>
<tr>
<th>AREAS/ Barangays</th>
<th>CASH INCOME (in pesos)</th>
<th>MEAT CONSUMED (in kilograms)</th>
<th>MEAT CONSUMED (cash equivalent: in pesos)</th>
<th>TOTAL INCOME (in pesos)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bical</td>
<td>1900</td>
<td>5</td>
<td>300</td>
<td>2200</td>
</tr>
<tr>
<td>Cotmo</td>
<td>2049</td>
<td>24</td>
<td>1440</td>
<td>3489</td>
</tr>
<tr>
<td>Gnaran</td>
<td>2436</td>
<td>22</td>
<td>1320</td>
<td>3756</td>
</tr>
<tr>
<td>Pinamasagan</td>
<td>1487</td>
<td></td>
<td></td>
<td>1487</td>
</tr>
<tr>
<td>Average</td>
<td>1968</td>
<td>17</td>
<td>1020</td>
<td>2753</td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alianza</td>
<td>1704</td>
<td></td>
<td></td>
<td>1704</td>
</tr>
<tr>
<td>Beberon</td>
<td>1463</td>
<td>47</td>
<td>2820</td>
<td>4283</td>
</tr>
<tr>
<td>Bonifacio</td>
<td>2150</td>
<td>60</td>
<td>3600</td>
<td>5750</td>
</tr>
<tr>
<td>Buenavista</td>
<td>2100</td>
<td>15</td>
<td>900</td>
<td>3000</td>
</tr>
<tr>
<td>Del Pilar</td>
<td>4714</td>
<td>10</td>
<td>600</td>
<td>5314</td>
</tr>
<tr>
<td>Grijalvo</td>
<td>2500</td>
<td>95</td>
<td>5700</td>
<td>8200</td>
</tr>
<tr>
<td>Lupi</td>
<td>2050</td>
<td></td>
<td></td>
<td>2050</td>
</tr>
<tr>
<td>Pamukid</td>
<td>1068</td>
<td>52</td>
<td>3120</td>
<td>4188</td>
</tr>
<tr>
<td>Planza</td>
<td>792</td>
<td>63</td>
<td>3780</td>
<td>4572</td>
</tr>
<tr>
<td>Rizal</td>
<td>3686</td>
<td>45</td>
<td>2700</td>
<td>6386</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>1390</td>
<td></td>
<td></td>
<td>1390</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>2650</td>
<td>34</td>
<td>2040</td>
<td>4690</td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bocal</td>
<td>3178</td>
<td>15</td>
<td>900</td>
<td>4078</td>
</tr>
<tr>
<td>Calascagas</td>
<td>1500</td>
<td></td>
<td></td>
<td>1500</td>
</tr>
<tr>
<td>Daculang Tubig</td>
<td>3188,</td>
<td>19</td>
<td>1140</td>
<td>4328</td>
</tr>
<tr>
<td>Maragni</td>
<td>1417</td>
<td>50</td>
<td>3000</td>
<td>4417</td>
</tr>
<tr>
<td>Pipian</td>
<td>2500</td>
<td>5</td>
<td>300</td>
<td>2800</td>
</tr>
<tr>
<td>Tagpocol</td>
<td>3000</td>
<td>30</td>
<td>1800</td>
<td>4800</td>
</tr>
<tr>
<td>TOTAL</td>
<td>48922</td>
<td>591</td>
<td>35460</td>
<td>84382</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>2224</td>
<td>34.76</td>
<td>2086</td>
<td>3836</td>
</tr>
</tbody>
</table>
Table 5.12. 22a. Research priorities in poultry.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>Breeding (a)</th>
<th>Breeding (b)</th>
<th>Processing (c)</th>
<th>Health (d)</th>
<th>Health (e)</th>
<th>Feeds (f)</th>
<th>Socio-eco (g)</th>
<th>Socio-eco (h)</th>
<th>Socio-eco (i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Rank</td>
<td>1.5</td>
<td>3</td>
<td>4.75</td>
<td>4.25</td>
<td>2.75</td>
<td>5.75</td>
<td>4</td>
<td>6.5</td>
<td>8</td>
</tr>
<tr>
<td>Tentative Rank</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>7</td>
<td>4</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Rank</td>
<td>2.14</td>
<td>3.75</td>
<td>4.20</td>
<td>2.5</td>
<td>2.33</td>
<td>3.20</td>
<td>5.20</td>
<td>5.33</td>
<td>6.0</td>
</tr>
<tr>
<td>Tentative Rank</td>
<td>1</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Rank</td>
<td>1.75</td>
<td>4.00</td>
<td>1.25</td>
<td>2</td>
<td>3.0</td>
<td>5.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tentative Rank</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAN RANK</td>
<td>1.33</td>
<td>2.67</td>
<td>5.33</td>
<td>3.00</td>
<td>4.67</td>
<td>5.33</td>
<td>5.33</td>
<td>6.0</td>
<td></td>
</tr>
<tr>
<td>FINAL RANK</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

**LEGEND:**

a- Improvement/upgrading of indigenous poultry species.
b- Collection, characterization, and evaluation of Philippine native chicken.
c- Meat/egg processing technology
d- Prevention and control of major poultry diseases and parasites.
e- Development and production of vaccines, bacterins and antibiotics.
f- Feeds/feeding management/ nutrition.
g- Market research
h- Assessment/evaluation of technology transfer system.
i - Policy formulation.

Table 5.12. 22b. Research priorities: chevon/mutton.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>Breeding (a)</th>
<th>Breeding (b)</th>
<th>Breeding (c)</th>
<th>Socio-eco (d)</th>
<th>Socio-eco (e)</th>
<th>Nutrition (f)</th>
<th>Nutrition (g)</th>
<th>Nutrition (h)</th>
<th>Nutrition (i)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Rank</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tentative Rank</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Rank</td>
<td>1.2</td>
<td>2.0</td>
<td>2.3</td>
<td>3.0</td>
<td>3.0</td>
<td>2.0</td>
<td>3.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tentative Rank</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Rank</td>
<td>1</td>
<td></td>
<td>4</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tentative Rank</td>
<td>1</td>
<td></td>
<td>4</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEAN RANK</td>
<td>1.06</td>
<td>2</td>
<td>2.3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>FINAL RANK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.12. 23. Number of years in coconut farming.

<table>
<thead>
<tr>
<th>AREAS</th>
<th>1-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16-20</th>
<th>21-25</th>
<th>26-30</th>
<th>31-35</th>
<th>36-40</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coastal</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>7</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td>Lowland</td>
<td>3</td>
<td>7</td>
<td>7</td>
<td>10</td>
<td>8</td>
<td>18</td>
<td>6</td>
<td>7</td>
<td>66</td>
</tr>
<tr>
<td>Upland</td>
<td>6</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
<td>19</td>
<td>12</td>
<td>23</td>
<td>14</td>
<td>25</td>
<td>12</td>
<td>10</td>
<td>127</td>
</tr>
<tr>
<td>PERCENT</td>
<td>9.4</td>
<td>15.0</td>
<td>9.4</td>
<td>18.1</td>
<td>11.0</td>
<td>19.7</td>
<td>9.4</td>
<td>7.9</td>
<td>100</td>
</tr>
<tr>
<td>MEAN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>≈ 20 years</td>
</tr>
</tbody>
</table>

Table 5.12. 24. Tenural status and farm size (in hectares).

<table>
<thead>
<tr>
<th>AREAS/ Barangays</th>
<th>TENURAL STATUS</th>
<th>Average Farm Size</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Owned</td>
<td>Share-tenant</td>
</tr>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bical</td>
<td>4.5</td>
<td>4.2</td>
</tr>
<tr>
<td>Cotmo</td>
<td>29.5</td>
<td></td>
</tr>
<tr>
<td>Gnaran</td>
<td>1.7</td>
<td>5.0</td>
</tr>
<tr>
<td>Pinamasagan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alianza</td>
<td>1.6</td>
<td>4.6</td>
</tr>
<tr>
<td>Beberon</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Bonifacio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buenavista</td>
<td>18.0</td>
<td></td>
</tr>
<tr>
<td>Del Pilar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grijalvo</td>
<td>9.8</td>
<td></td>
</tr>
<tr>
<td>Lupi</td>
<td>2.1</td>
<td>5.0</td>
</tr>
<tr>
<td>Pamukid</td>
<td>4.3</td>
<td>3.0</td>
</tr>
<tr>
<td>Planza</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rizal</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>San Joaquin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>3.3</td>
<td></td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bocal</td>
<td>1.9</td>
<td>1.0</td>
</tr>
<tr>
<td>Calascagas</td>
<td></td>
<td>2.0</td>
</tr>
<tr>
<td>Daculang Tubig</td>
<td>1.7</td>
<td>5.3</td>
</tr>
<tr>
<td>Maragni</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Pipian</td>
<td>3.0</td>
<td>6.8</td>
</tr>
<tr>
<td>Tagpocol</td>
<td>4.5</td>
<td></td>
</tr>
</tbody>
</table>
Table 5.12. 25. Average income from coconut farming per household per month.

<table>
<thead>
<tr>
<th>AREAS/ Barangays</th>
<th>MEAN FREQUENCY</th>
<th>MEAN INCOME PER HARVES</th>
<th>MEAN INCOME PER MONTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bical</td>
<td>3.9</td>
<td>3180</td>
<td>1034</td>
</tr>
<tr>
<td>Cotmo</td>
<td>6.0</td>
<td>425</td>
<td>212</td>
</tr>
<tr>
<td>Gnaran</td>
<td>4.6</td>
<td>3148</td>
<td>1207</td>
</tr>
<tr>
<td>Pinamasagan</td>
<td>5.2</td>
<td>1560</td>
<td>676</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>2078</td>
<td>782</td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alianza</td>
<td>4.1</td>
<td>3833</td>
<td>1310</td>
</tr>
<tr>
<td>Beberon</td>
<td>2.9</td>
<td>988</td>
<td>239</td>
</tr>
<tr>
<td>Bonifacio</td>
<td>4.5</td>
<td>2250</td>
<td>843</td>
</tr>
<tr>
<td>Buenavista</td>
<td>5.5</td>
<td>2700</td>
<td>1238</td>
</tr>
<tr>
<td>Del Pilar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grijalvo</td>
<td>4.5</td>
<td>1700</td>
<td>638</td>
</tr>
<tr>
<td>Lupi</td>
<td>6.0</td>
<td>1850</td>
<td>925</td>
</tr>
<tr>
<td>Pamukid</td>
<td>5.1</td>
<td>1946</td>
<td>827</td>
</tr>
<tr>
<td>Planza</td>
<td>3.8</td>
<td>2200</td>
<td>697</td>
</tr>
<tr>
<td>Rizal</td>
<td>6.5</td>
<td>3333</td>
<td>1805</td>
</tr>
<tr>
<td>San Joaquin</td>
<td>3.9</td>
<td>366</td>
<td>119</td>
</tr>
<tr>
<td>Santa Cruz</td>
<td>6.7</td>
<td>2380</td>
<td>1329</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>2150</td>
<td>906</td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bocal</td>
<td>5.1</td>
<td>1080</td>
<td>459</td>
</tr>
<tr>
<td>Calascagas</td>
<td>4.5</td>
<td>600</td>
<td>225</td>
</tr>
<tr>
<td>Daculang Tubig</td>
<td>5.5</td>
<td>3600</td>
<td>1650</td>
</tr>
<tr>
<td>Maragni</td>
<td>7.0</td>
<td>1664</td>
<td>1971</td>
</tr>
<tr>
<td>Pipian</td>
<td>3.5</td>
<td>1207</td>
<td>352</td>
</tr>
<tr>
<td>Tagpolo</td>
<td>4.5</td>
<td>2750</td>
<td>1031</td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>1817</td>
<td>781</td>
</tr>
<tr>
<td>GRAND MEAN</td>
<td>4.9</td>
<td>2036</td>
<td>847</td>
</tr>
</tbody>
</table>
### Table 5.12. 26. Possibility and acceptability of goats under coconuts.

<table>
<thead>
<tr>
<th>STATEMENTS</th>
<th>Coastal Interpretation</th>
<th>AREAS Mean</th>
<th>Lowland Interpretation</th>
<th>Upland Interpretation</th>
<th>GRAND MEAN</th>
<th>INTERPRETATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximize use of farming labor.</td>
<td>3.7</td>
<td>A</td>
<td>2.8</td>
<td>NS</td>
<td>3.5</td>
<td>A</td>
</tr>
<tr>
<td>Would supplement income.</td>
<td>4.5</td>
<td>A</td>
<td>2.9</td>
<td>NS</td>
<td>3.5</td>
<td>A</td>
</tr>
<tr>
<td>Source of meat for family or fiesta.</td>
<td>4.1</td>
<td>A</td>
<td>3.0</td>
<td>NS</td>
<td>3.6</td>
<td>A</td>
</tr>
<tr>
<td>Has available feeds/ or pasture</td>
<td>4.4</td>
<td>A</td>
<td>2.9</td>
<td>NS</td>
<td>3.7</td>
<td>A</td>
</tr>
<tr>
<td>If desired, can buy stock from neighbours</td>
<td>4.2</td>
<td>A</td>
<td>2.6</td>
<td>NS</td>
<td>3.3</td>
<td>NS</td>
</tr>
<tr>
<td>Maximize use of coconut farms</td>
<td>2.9</td>
<td>NS</td>
<td>2.6</td>
<td>NS</td>
<td>3.5</td>
<td>A</td>
</tr>
<tr>
<td>Compatible with coconuts.</td>
<td>3.5</td>
<td>NS</td>
<td>2.9</td>
<td>NS</td>
<td>3.4</td>
<td>NS</td>
</tr>
<tr>
<td>Easy to take care of.</td>
<td>3.5</td>
<td>NS</td>
<td>3.3</td>
<td>NS</td>
<td>3.4</td>
<td>NS</td>
</tr>
<tr>
<td>Increase soil fertility.</td>
<td>4.4</td>
<td>A</td>
<td>2.4</td>
<td>DA</td>
<td>4.1</td>
<td>A</td>
</tr>
<tr>
<td>Might be stolen.</td>
<td>3.6</td>
<td>A</td>
<td>3.0</td>
<td>NS</td>
<td>3.7</td>
<td>A</td>
</tr>
<tr>
<td>No ready market.</td>
<td>2.4</td>
<td>DA</td>
<td>3.3</td>
<td>NS</td>
<td>3.4</td>
<td>NS</td>
</tr>
<tr>
<td>Might destroy others’ crops.</td>
<td>3.6</td>
<td>A</td>
<td>2.8</td>
<td>NS</td>
<td>3.1</td>
<td>NS</td>
</tr>
</tbody>
</table>

### Table 5.12. 27. Pasture species commonly found in coconut farms.

<table>
<thead>
<tr>
<th>PASTURE SPECIES</th>
<th>FREQUENCY OF MENTION</th>
<th>FREQUENCY OF MENTION PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Percent</td>
</tr>
<tr>
<td>1. Cogon</td>
<td>64</td>
<td>40.5</td>
</tr>
<tr>
<td>2. Carabao grass</td>
<td>59</td>
<td>37.3</td>
</tr>
<tr>
<td>3. Napier</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>3. Ipil-ipil</td>
<td>9</td>
<td>5.7</td>
</tr>
<tr>
<td>5. Makahiya</td>
<td>3</td>
<td>1.9</td>
</tr>
<tr>
<td>6. Gano</td>
<td>2</td>
<td>1.3</td>
</tr>
<tr>
<td>7. Centrosema</td>
<td>18</td>
<td>11.4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>58</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 5.12. 28. Household member participation in coconut farm activities.

<table>
<thead>
<tr>
<th>AREAS/</th>
<th>REAPING</th>
<th>GATHERING</th>
<th>DEHUSKING</th>
<th>NUT CRACKING</th>
<th>SMOKING/DRYING</th>
<th>MEAT SEPARATION</th>
<th>BAGGING</th>
<th>HAULING</th>
<th>SELLING</th>
<th>TOTAL</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOUSEHOLD MEMBERS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COASTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>19</td>
<td>19</td>
<td>16</td>
<td>21</td>
<td>22</td>
<td>22</td>
<td>17</td>
<td>13</td>
<td>20</td>
<td>169</td>
<td>49.9</td>
</tr>
<tr>
<td>Mother</td>
<td>0</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>27</td>
<td>8.0</td>
<td></td>
</tr>
<tr>
<td>Son</td>
<td>10</td>
<td>10</td>
<td>16</td>
<td>10</td>
<td>12</td>
<td>12</td>
<td>7</td>
<td>102</td>
<td>30.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daughter</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>11</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Hired Labor</td>
<td>7</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>13</td>
<td>39</td>
<td>8.8</td>
</tr>
<tr>
<td>Total</td>
<td>339</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LOWLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>38</td>
<td>31</td>
<td>32</td>
<td>37</td>
<td>40</td>
<td>35</td>
<td>35</td>
<td>40</td>
<td>38</td>
<td>326</td>
<td>40.8</td>
</tr>
<tr>
<td>Mother</td>
<td>6</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td>8</td>
<td>5</td>
<td>6</td>
<td>5</td>
<td>13</td>
<td>69</td>
<td>8.6</td>
</tr>
<tr>
<td>Son</td>
<td>12</td>
<td>23</td>
<td>16</td>
<td>20</td>
<td>15</td>
<td>15</td>
<td>18</td>
<td>12</td>
<td>11</td>
<td>142</td>
<td>17.8</td>
</tr>
<tr>
<td>Daughter</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>12</td>
<td>1.5</td>
</tr>
<tr>
<td>Hired Labor</td>
<td>33</td>
<td>27</td>
<td>35</td>
<td>24</td>
<td>26</td>
<td>28</td>
<td>26</td>
<td>34</td>
<td>17</td>
<td>250</td>
<td>31.3</td>
</tr>
<tr>
<td>Total</td>
<td>799</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPLAND</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>29</td>
<td>28</td>
<td>30</td>
<td>31</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>32</td>
<td>34</td>
<td>278</td>
<td>55.0</td>
</tr>
<tr>
<td>Mother</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>16</td>
<td>3.2</td>
</tr>
<tr>
<td>Son</td>
<td>12</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>12</td>
<td>13</td>
<td>13</td>
<td>11</td>
<td>8</td>
<td>111</td>
<td>22</td>
</tr>
<tr>
<td>Daughter</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>10</td>
<td>2.0</td>
</tr>
<tr>
<td>Hired Labor</td>
<td>13</td>
<td>13</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>4</td>
<td>90</td>
<td>17.8</td>
</tr>
<tr>
<td>Total</td>
<td>505</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRAND TOTAL</td>
<td>182</td>
<td>199</td>
<td>183</td>
<td>193</td>
<td>183</td>
<td>176</td>
<td>173</td>
<td>186</td>
<td>168</td>
<td>164</td>
<td>100</td>
</tr>
<tr>
<td>PERCENT</td>
<td>11.1</td>
<td>12.1</td>
<td>11.1</td>
<td>11.7</td>
<td>11.1</td>
<td>10.7</td>
<td>10.5</td>
<td>11.3</td>
<td>10.2</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>
Table 6.1. Strategic questions based on a conceptual model on cooperative development.

I. CONSCIENTICIZE

Is awareness of the situation necessary to improve it?

a. Do you think people are aware of the current situation of our community?

b. Have you known of any program where group of our people or our people at large analyze and critique the situation?

c. Is there any movement that gets the people's perception of the situation. What it means to them?

d. Do existing programs and services consider the aspirations or needs of the people?

e. e.g Barangay Development Funds ==> for infrastructures only

e. Is there a collective exploration of possibilities?

II. EMPOWER

* Do you think our people can do what they like to achieve? or can become what they like to be?

* How can we become what we like to become?
* Ano an kahulugan kan "kasaraditan"

Note: "kasaraditan" is an accepted term to refer to the "poor”, the “ordinary people”. It is derived from the word "sakit" which means small. I have hoped that this word would trigger a debate on issues of empowerment. And it really did.

Do you like a situation where majority of our people are powerless?

a. How can we improve our self-confidence, self-esteem?

b. How can we express our care for one another in our community?

c. How can we improve our sense of responsibility in the community?
d. Who are the leaders of our community. Why are they called leaders? Should we depend on these "formal" leaders. How can we develop leadership among ourselves?

e. Do we have organized cells/associations.

f. What community activities do you know? Do you observe popular participation?

g. Is there any 'system' that cater to collective concerns and common interest?

h. How do you feel about ningas kugon. (Ningas kugon is like a bush fire, it is intense but does not last long. So ningas kugon means a great enthusiasm but is not sustained)

How can we support and sustain good initiatives?

III. UPLIFT THE ECONOMIC WELL-BEING OF THE PEOPLE

a. Is there support to people's livelihood projects?
- protective policies?
- loan facilities?
- creating markets?
- incentives? - vs. foreign investors

b. How would you like to be supported in your concerns for livelihood.

IV. ENCOURAGE COOPERATIVE DEVELOPMENT?

* What does a cooperative mean to you?
* Is cooperative important to community development?
* What could value transformation do to cooperative development?

V. PROMOTE FAMILY AND SOCIAL RELATIONS

* Do you believe that a family is a basic unit of our community?
* Do families exist as individual families or they co-exist with other families as one community?
* How can families care for each other?
* How can we improve family and social relations?

VI. EQUITY

"Ang lahat ay pantay-pantay?" (Are all equal?) How do you feel about this statement? How can we be pantay-pantay?

7. MONITOR AND CONTROL. How do we start and sustain our initiatives?
Table 6.2. The transformation process for cooperative development (as conceived by the multi-sectoral representation during the workshop, December 5, 1992).

**Group 1: On Conscientization**

* Awaken those who are lethargic
* Those who are awakened should live an example for those who do not participate.
* We should show the advantage of cooperation so we can fulfill our dreams.
* The people should be organized, have seminars and trainings on how to deal critically with our situation.
* Participation is required for community development. “In unity there is strength”.

**Group 2: On Empowerment**

* Form organizations
  - establish rules and regulations to guide the group
  - elect leaders to lead the group
* Let the officers coordinate with the service agencies.
* Conduct seminars on Christian Leadership
* Encourage participation in community development activities.
* Conduct series of formation seminars, so there can be self-discipline, good character and sense of responsibility as a citizen.
* Have periodic consultation or dialogue among members of the community
* Explore how we can encourage wide participation to common endeavour.
<table>
<thead>
<tr>
<th>Group 3: On Livelihood and Cooperative Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Coordinate with barangay officials in the campaign for food production and other livelihood projects.</td>
</tr>
<tr>
<td>* undertake animal dispersal program.</td>
</tr>
<tr>
<td>* coordinate with concerned service agencies.</td>
</tr>
<tr>
<td>* conduct seminars on value transformation and reorientation.</td>
</tr>
<tr>
<td>* activate barangay development council</td>
</tr>
<tr>
<td>* facilitate implementation of applicable technology</td>
</tr>
<tr>
<td>e.g. utilization of animal wastes for fertilizer and non-conventional energy</td>
</tr>
<tr>
<td>* Conduct seminars on cooperatives</td>
</tr>
<tr>
<td>* Organize groups, associations and cooperatives.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group 4: On Equity and Family and Social Relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Encourage children to participate in family projects.</td>
</tr>
<tr>
<td>* Encourage participation in community activities.</td>
</tr>
<tr>
<td>* Promote discipline in a desirable way - revive good “kaugalian” (customs).</td>
</tr>
<tr>
<td>* Set a good example to children.</td>
</tr>
<tr>
<td>* Promote good relations in the family</td>
</tr>
<tr>
<td>- through marriage encounters.</td>
</tr>
<tr>
<td>* Appreciate each one’s efforts in the family</td>
</tr>
</tbody>
</table>
Table 7.1. The cooperative principles based on the Cooperative code of the Philippines, R.A. 6938

REPUBLIC ACT NO. 6938

AN ACT TO COOPERATIVE CODE OF THE PHILIPPINES

CHAPTER 1
GENERAL CONCEPTS AND PRINCIPLES

ATR.4. Cooperative Principles. - Every cooperative shall conduct its affairs in accordance with Filipino culture and experience and the universally accepted principles of cooperative which include the following;

1. **Open and Voluntary membership** - Member in cooperative shall be voluntary and available to all individuals regardless to the social, political, racial or religious background of beliefs.

2. **Democratic Control** - Cooperatives are democratic organizations. Their affair shall be administered by person elected appointed in a manner agreed upon the members. Member of primary cooperatives have equal voting right on-one member-one voting principle: **Provided, however**, that in the case secondary and tertiary cooperatives, the provision of article 37 of this code shall apply.

3. **Limited Interest in Capital** - Share capital shall receive a strictly limited rate of interest.

4. **Division of Net Surplus** - Net surplus arising out of the operations of a cooperative belongs to its member and shall be equitably distributed for cooperative development common services, in divisible reverse fund, and for limited interest on capital and/or patronage refund in the manner provide in this Code and in the articles of cooperation and bylaws.

5. **Cooperative education** - All cooperative shall make provision for the education for their members, officer and employees and of the general public base don the principles of cooperation.

6. **Cooperation among cooperatives** - All cooperatives in order to the best serve the interest of their members and communities, shall actively cooperate with other cooperatives at local, national and international level.