RURAL BARANGAY TRANSFORMATION AND THE ADOPTION OF AGROFORESTRY INNOVATION IN THE PHILIPPINES

A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of Doctor of Philosophy in Sociology in the University of Canterbury

by

Roberto L. Saladar

University of Canterbury 2000
Southeast Asia

Microsoft Map

Philippines

Microsoft Map
VOLUME I
DEDICATION

This Thesis Is Dedicated To My Wife, Hermelina, And My Children, Florie May, Herbert And Paul Robert...

...And My Mother, Brothers, Sisters, Relatives And In Memory Of My Father...

...And Those People Who Have Supported and Inspired Me Through The Years of My Study.
Abstract

The complexities of human and technical elements involved in rural barangay transformation and the adoption of agroforestry innovations in the Philippines are explored through case studies conducted in Aklan. Seven months' fieldwork was undertaken in 1998 while living in Sibalew, Feliciano and Linayasan, where the Aklan State College of Agriculture (ASCA) introduced demonstration projects. Participatory Rural Appraisal was conducted with locals, staff of ASCA and others to explore social, cultural, political, economic and technical factors, and the changes to rural lifestyles, when demonstration projects were introduced. Qualitative, descriptive analysis compared and contrasted their ideas and opinions. The results are presented in two case studies which identified conditions that hindered the adoption of new technologies.

Concentrated development in one area, over a long period, facilitated diversification of farming methods, created new economic activities, built social networks, established institutional alliances and introduced urban lifestyles. The complexity of life increased. However, changes threatened traditional cultural practices and the natural environment. Gender issues and unequal power relations impeded access to and control of resources. For short-term projects, there is an increased likelihood of major obstacles preventing success. Unique barangay features and a variety of economic conditions affected the full participation of locals. The leadership style of local officials and institutional alliances also determined the results of rural development. This research shows how necessary it is to analyse and understand important cultural values, local politics and traditional practices if development programmes are to achieve their real potential.

The conclusion of the thesis indicated that successful rural development projects depend on complex elements associated with the cultural practices of locals, the leadership of local officials, and alliances between development institutions and linkage agencies combining in a given social and political situation to advance/impede development. The process of development seeks constantly for new approaches that are appropriate to the needs of locals' social, economic and political conditions, and that suit the geographical location. The changing social and natural environments challenge the current state of rural development in the Philippines.
Acknowledgements

Above all, I give thanks to our God Almighty, Jesus Christ, for His wonderful gifts and blessings. He gave me the strength to accept the challenges of this thesis. I wish to thank the Philippines’ Government, especially Dr. Helmar E. Aguilar, President, Aklan State College of Agriculture and Dr. Ramon D. Dueña and Mrs. Teresita Dueña, who provided continuous support during my doctorate study. I wish to acknowledge the grant from the New Zealand Government, in particular the Ministries of Foreign Affairs and Trade who supported my scholarship and encouraged me to undertake this thesis in New Zealand. I wish to thank Dr. John Pickering and Eunice McKessar of the International Student Centre for their guidance and support. I wish to thank Jill Hansen who provided full support on the transfer of my scholarship from Lincoln to the University of Canterbury. The kind assistance of many people over five years has meant the completion of this thesis.

This thesis is a product of multiple efforts. There are many people who directly and indirectly helped, from the initial beginnings to the final completion. Each person has made a special contribution. In the Sociology Department of the University of Canterbury, I owe a debt of gratitude to Dr. Alison Loveridge and Mr. Colin Goodrich, my supervisors, for their continuous guidance. Their methodological and theoretical knowledge of sociology was willingly shared with me. My supervisors were the primary source of comment, criticism and guidance throughout this thesis. I wish to thank Dr. Arnold Parr and Mr. Antoine Monti who provided generous support in my study. I wish to thank Tim Nolan at the Geography Department for his technical assistance in putting maps on my thesis. Jenny Lee, Robyn Selamat and especially Hugh Williams spent considerable time proofreading the final manuscripts of my thesis and their efforts and support were greatly appreciated. I wish to thanks my external examiners Dr. Mark Paine of Melbourne University and Dr. Storey of Massey University who spent considerable time on their evaluation of my thesis.

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Finally, I extend sincerest thanks in special recognition of the love and support of my wife, Hermelina, and my children, Florie May, Herbert and Paul Robert. Without their encouragement, understanding and spiritual support this endeavour would not have been possible. I also wish to convey posthumous thanks to my late father. I thank my mother, brothers, sisters and all my relatives for their kindness and prayers.

Roberto L. Saladar
11 August 2000
List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAC</td>
<td>Aklan Agricultural College</td>
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<tr>
<td>AAC-AEOP</td>
<td>Aklan Agricultural College - Agricultural Education Outreach Project</td>
</tr>
<tr>
<td>ACAP</td>
<td>Association of Colleges of Agriculture in the Philippines</td>
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<tr>
<td>AEOP</td>
<td>Agricultural Education Outreach Project</td>
</tr>
<tr>
<td>ASCA</td>
<td>Aklan State College of Agriculture</td>
</tr>
<tr>
<td>ASCA-ERDSC</td>
<td>Aklan State College of Agriculture - Extension and Rural Development Services Center</td>
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<tr>
<td>BDLP</td>
<td>Barangay Demonstration Laboratory Project</td>
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<td>CDF</td>
<td>Community Development Fund</td>
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<tr>
<td>DA</td>
<td>Department of Agriculture</td>
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<tr>
<td>DAR</td>
<td>Department of Agrarian Reform</td>
</tr>
<tr>
<td>DAT-BAT</td>
<td>Diploma in Agricultural Technology - Bachelor in Agricultural Technology</td>
</tr>
<tr>
<td>DECS</td>
<td>Department of Education, Culture and Sports</td>
</tr>
<tr>
<td>DENR</td>
<td>Department of Environment and Natural Resources</td>
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<tr>
<td>ERDSC</td>
<td>Extension and Rural Development Services Center</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<td>FIDA</td>
<td>Fiber Development Authority</td>
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<td>FYDP</td>
<td>Foundation for Youth Development in the Philippines</td>
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<td>IGP</td>
<td>Income Generating Project</td>
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<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>IPM</td>
<td>Integrated Pest Management</td>
</tr>
<tr>
<td>IRRI</td>
<td>International Rice Research Institute</td>
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<tr>
<td>JICA</td>
<td>Japanese International Co-operation Agency</td>
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<td>LGU</td>
<td>Local Government Unit</td>
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<td>LTO</td>
<td>Land Transportation Office</td>
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<tr>
<td>MDC</td>
<td>Municipal Development Council</td>
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<tr>
<td>MEC</td>
<td>Ministry of Education and Culture</td>
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<td>NFAC</td>
<td>National Food and Agriculture Council</td>
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<td>NSO</td>
<td>National Statistics Office</td>
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<td>OBM</td>
<td>Office of Budget and Management</td>
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<td>OSY</td>
<td>Out-of-School Youth</td>
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<tr>
<td>PMO</td>
<td>Project Management Office</td>
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<tr>
<td>PNVSACA</td>
<td>Philippine National Volunteer Service Coordinating Agency</td>
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<tr>
<td>PRA</td>
<td>Participatory Rural Appraisal</td>
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<tr>
<td>RA</td>
<td>Republic Act</td>
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<tr>
<td>SA</td>
<td>Sustainable Agriculture</td>
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<tr>
<td>SALT</td>
<td>Sloping Agricultural Land Technology</td>
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<tr>
<td>SEARCA</td>
<td>Southeast Asian Regional Center for Graduate Study and Research in Agriculture</td>
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<tr>
<td>SOA</td>
<td>Student Outreach Agent</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<tr>
<td>USPC</td>
<td>United States Peace Corps</td>
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<tr>
<td>VIDA</td>
<td>Volunteer for Information and Development Assistance</td>
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<tr>
<td>VSO</td>
<td>Voluntary Service Overseas</td>
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PART ONE
Map 1. Map of the Philippines.

Source: EAAU (1998: xii)
Chapter One
Introduction to the Thesis

1.1 General Introduction

The Philippine government has for many years supplemented rural development through extensions programmes implemented by regional colleges of agriculture. The thesis seeks to examine the rural transformation and the adoption of agroforestry innovation\(^1\) in the three barangays\(^2\) where the Aklan State College of Agriculture implemented their extension programmes. The thesis first examines how technologies introduced through demonstration farms changed the local social structure and rural living conditions. Second, it evaluates the extension methods of the Aklan State College of Agriculture that were used to introduce demonstration farms and identifies key elements crucial to the improvement of their extension programme.

The Aklan State College of Agriculture is considered one of the oldest agricultural schools in Aklan province in the western parts of the Philippines. This College was first established as an Intermediate Farm School in 1918. It was converted into a Secondary Rural School in 1928 and became an Agricultural College in 1960. Recently, it was converted into the Aklan State College of Agriculture in 1992. Over this period there have been changes of policies and constant restructuring of instruction, research and extension programmes, but the Aklan State College of Agriculture is young when compared with the University of the Philippines. The University of the Philippines has well-funded programmes and established networks with other Universities overseas.

\(^1\) In this thesis, agroforestry innovation is referred to, and included in the various agricultural technologies introduced to the local farmers on the sites of the case studies. This included improved varieties of crops and fruit trees; improved breeds of livestock and the use of organic and inorganic fertiliser to diversify the agricultural production. In particular, the promotion of the contour hedge method used to prevent soil erosion in hillside farming and the establishment of the orchard demonstration projects were examples of innovation of the traditional agroforestry practices in the Philippines (see Lasco and Lasco, 1994:46; Agroforestry Systems, 1982: 7-12).

\(^2\) During the Pre-Colonial Philippines, Bautista (1988: 144) notes "[a] political and social organization based on kinship ties already existed. This basic unit was the barangay, from the Malay word balangay meaning boat. In the baranganic society the practice of private land was absent. Each member participated in the community ownership of the soil and the instruments of production, while village chiefs or datu
A major issue in the literature was that agricultural institutions in the Philippines had severe deficiencies when implementing national programmes in rural barangays. The agricultural colleges in particular, face numerous constraints that reduce their effectiveness in research and extension services. The lack of technical and support staff, poor mobility, low operating funds, inadequate field and laboratory equipment all contribute to this result. While facilities and equipment need upgrading, the literature emphasised that creating better development programmes with qualified staff is more important for overall success. Many authors have argued that the design deficiencies in national programmes such as inappropriate technologies being introduced, inadequate implementation capacity and a lack of effective participation of local communities have reduced the impact of projects and increased cost in implementation.

Despite the technical and financial difficulties, the Aklan State College of Agriculture had been able to establish community-based extension programmes\(^3\) in selected barangays, especially Sibalew, a ‘Model Barangay’ for other agricultural colleges in implementation of extension programmes in their regions. There were studies conducted and reports prepared in this programme which showed that the integration of national programmes and the participation of locals ensured the success of the new programmes. However, many issues and complex social, cultural and political problems associated with the implementation of the extension programme, were left unresolved in previous studies. This thesis will attempt to investigate some of those issues.

Seven months of fieldwork was conducted in 1998 by the author of this thesis living in Sibalew, Feliciano and Linayasan, where the College introduced demonstration farms. Participatory Rural Appraisal was conducted with different local groups in these three barangays to explore changes to rural lifestyles that occurred when the demonstration

acted merely as the administrators of the community’s properties. Production was geared fundamentally to the use of producers and to the fulfillment of kinship obligations and not toward exchange and profit.\(^3\)

\(^3\) This refers to the Barangay Demonstration Laborarototy Projects (BDLPs) that had been used by the Aklan State College of Agriculture as experimental sites for practical learning activities of both students and local people since the 1980s. In the same manner, the College used the BDLPs to promote new agricultural technologies and other agroforestry practices in their province. Sibalew, Feliciano and Linayasan are amongst the barangays in Aklan that were recipients of the demonstration farms promoted by the ASCA. The BDLPs were an attempt to assist the rural people improve their living conditions.
farms were introduced. These included social, cultural, political, economic and technical factors. The method used in this research included in-depth unstructured interviews with individuals, informal group discussions, participant observation, group mapping, field observations, attendance at meetings and participation in the various activities of locals. These activities allowed the locals and other actors to express their ideas, opinions and concerns about why some demonstration farms generated income successfully, while other farms were less successful, not achieving what the locals expected, despite the intensive extension services the College had provided. In-depth unstructured interviews and informal discussions were also conducted with extension staff, faculty, representatives from linkage agencies and local traders.

The results of the fieldwork were analysed from a qualitative and descriptive perspective, when comparing and contrasting the complex interactions between social, economic, cultural, political and institutional factors associated with the extension programmes of the College. The results of the fieldwork answer the following questions:

- What is the strategy used by the Aklan State College of Agriculture to promote the demonstration farms in Sibalew, Feliciano and Linayasan?
- What types of demonstration farms have the College established in these barangays?
- Who are the main actors in these demonstration farms?
- What benefits have the demonstration farms provided to the locals?
- How are these benefits distributed across the social structure of the barangay?
- What is the impact of the demonstration farms in Sibalew, Feliciano and Linayasan?
- How successful have the extension programmes of the College been in these three barangays?
- What agencies are involved in the extension programmes?

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These farms are sometimes called agroforestry demonstration projects. Agroforestry has been defined in many ways (Agroforestry Systems, 1982: 7-12). It is "a land-use system that involves socially and ecologically acceptable integration of trees with agricultural crops and/or animals, simultaneously or sequentially, so as to get increased total productivity of plant and animal in a sustainable manner from a unit of farmland, especially under conditions of low levels of technological inputs and marginal lands" (P.K.R. Nair, ICRAF in Agroforestry Systems, 1982: 8). In the Philippines, agroforestry has been viewed as the most promising land-use system for rural communities. It is described as the "raising of woody perennials with agricultural crops and/or livestock in a sustainable manner" (Lasco and Lasco, 1994:46).
What sorts of relationships exist between the College, Sibalew, Feliciano and Linayasan and their linkage agencies?

How have these relationships developed?

What are the benefits and who has benefited?

Over the period the College assisted the locals in Sibalew, Feliciano and Linayasan, what impact did social interactions of locals with the extension staff and faculty have on the current strategies, policies and extension methods of the College?

What were the reactions of locals from other barangays excluded from having demonstration farms, and how did this affect the social relationship of the College with Sibalew, Feliciano and Linayasan?

How important are the social interactions of different groups of actors in the College extension programmes?

What has the College achieved in Sibalew, Feliciano and Linayasan?

What is the culture of College?

In general, what type of approach is dominant in the extension programmes of the College?

Finally, what contribution does this thesis make to the College and development literature?

This thesis argues that the technology and economy-oriented extension methods used by the Aklan State College of Agriculture to promote the demonstration farms are similar to the innovation diffusion model developed in the United States in 1920s. This ‘top-down’ approach to trickle down technology into rural barangays is still the dominant approach, as opposed to the ‘putting people first’ approach which has also been used in extension programmes by the College for over fifteen years from 1983 to 1998. Several demonstration farms were established to promote modern technologies to improve the local farming industry in Sibalew, Feliciano and Linayasan. However, the technological and economic transformation that occurred in those barangays was not equally distributed across the social structure, but favoured those educated farmers who had land and regular sources of income. The unequal distribution of development assistance was a critical issue associated with the ‘top-down’ approach in technology-transfer that helped to increase social inequality.

This thesis analyses factors influencing the social interaction of locals and actors in the extension programmes which established demonstration farms in Sibalew, Feliciano and Linayasan from 1983 to 1998. Social interaction was a crucial factor when the researcher
examined changes in the social structure and lifestyle of locals in three barangays. It provides insights into the complex social, economic, cultural, political and technological needs of locals in relation to the improvement of their economic condition. It helps us to understand the institutional and intergenerational factors in technology-transfer. It also provided basic information in evaluating extension programmes.

The three barangays differ in terms of their social, economic, political and geographical situations. Their access to assistance from the College and other development agencies was not the same. The majority of locals lacked technical skills and were not familiar with the efficient use of modern agricultural technologies; one of the major reasons for rural to urban migration, which meant that most locals living in the barangays were those with less education. Those locals who had limited resources and no regular source of income were concerned with securing cash for the survival of their families. Those educated locals who had land and were self-sufficient dominated farming and local industries. Problems with social inequality were apparent between the more and less affluent families. Finally, conflict between elders and the young over traditional and modern farming methods was an enduring problem in all three barangays.

The case studies also revealed problems in the selection of locals who directly assisted the establishment of the demonstration farms. This factor is a critical issue in the distribution of extension services in the barangays. Ignoring this issue and some of the other complex problems the locals faced meant the College was misled into believing that the extension programmes effectively addressed the real needs of the disadvantaged. The College was particularly concerned with bridging gaps between rich and poor, improving the local economy and at the same time protecting the natural environment. This conflict between theory and practice is the major challenge the College and the other agricultural institutions in the Philippines are facing in extension programmes.

The most essential aspect of this thesis is to show how the effects of social interaction between locals and other actors involved in the extension programmes affected different aspects of the development of the barangays. Local industry is dependent on the outside economy via the media. Consequently the locals have limited power to defend themselves against political intervention from outside the barangays. The relationships developed between each barangay and the College are shown to be crucial to the overall
outcome of demonstration farms. The relationship between the locals and the linkage agencies provided a means for the continuous finance of the demonstration farms. This is what the locals, college staff and faculty had expected to achieve in the extension programmes. The impact of the new technologies caused new opportunities and developed yet another level of social problems. For example, the Sibalew case study shows that the social relationship established by locals with the college staff and faculty, over a fifteen-year period, promoted alliances and partnership in development. By contrast, the Linayasan case study shows conflict in social, cultural and political practices and intergenerational problems.

The thesis illustrates that the pattern of change in social structure and living conditions illustrated in the case studies, especially in Sibalew, corresponded to the four stages of transformation in the economic development of traditional society examined in the literature. The first stage was the 'modernisation' of traditional farming methods through the establishment of demonstration farms to promote modern crop varieties and new breeds of animal. The second stage was the 'commercialisation' of local produce, changing subsistence farming into intensive capital-based methods using commercial fertilisers and spray chemicals. The third stage was 'industrialisation' of agriculture; the replacement of animal traction and the reciprocal labour system by machine power in farming. Finally, the last stage was 'urbanisation,' an improvement of infrastructure facilities that connected local industry to urban centres.

The thesis revealed that the different timing of the extension programmes introduced in the three barangays influenced the history of the demonstration farms established. Over fifteen years from 1983 to 1998 in Sibalew the social interaction between the locals, extension staff and faculty developed a partnership in extension programmes between Sibalew locals and the College staff. Alliances in development projects of Sibalew locals with extension staff and faculty were established. This circumstance meant it was advantageous for the College to focus on Sibalew, as it was expected that it could ensure the success of demonstration farms funded by its linkage agencies. There were students, some private individuals and volunteers from overseas involved in the demonstration farms of Sibalew who were not involved in other case study barangays. The case study also showed that the unique leadership styles of Sibalew officials, especially the 'charisma' of the barangay captain successfully united locals and maintained social
relationships that led them to acquire continued grants and assistance from other agencies.

In Linayasan, however, the case study shows the social interaction of locals with the extension staff, college faculty, students and other actors was for only two years. This time was too short for the farmer co-operators and the College to achieve successful results with the demonstration farms. As well as limited time and funding, Linayasan was affected by the impact of the reorganisation of departments in the College and the restructuring of the extension programmes. This had the effect of developing higher expectations in the locals, extension staff, students and other actors in the demonstration farms in this barangay. The Department of Extension and Rural Development Services Center was created in 1992 to direct the extension programmes. It expected to apply the grassroots extension approach when assisting locals to establish demonstration farms based on the Sibalew experiences. These actions were replicated in selected barangays throughout the Aklan province, Linayasan was just one of those barangays.

The higher expectations of the locals and the extension staff were not fully realised and some locals annoyed over the effectiveness of the technology promoted in the demonstration farms. The case study suggests that what the College achieved in their extension effort in Sibalew would be difficult to replicate in other barangays, unless a similar amount of time and financial assistance were provided. It was especially important to provide short-term income for the immediate needs of the less affluent farmer co-operators who were the recipients of the demonstration farms assisted by the Center in Linayasan. The diversity of social structure and the various sources of income for locals, as well as the geographic conditions were factors that made Linayasan’s potential development different from Sibalew’s. The demonstration farms established in Linayasan confirmed that the technology promoted in Sibalew was not appropriate for the diverse social and geographic conditions of Linayasan, given limited time and funding. Unlike Sibalew, where locals had developed a partnership with the College, in Linayasan the roles of barangay officials and the farmer co-operators were not fully understood by the locals. Time and financial constraints hindered the Center’s ability to provide continuous assistance in this barangay.
The thesis revealed that the transformation that occurred in the barangays was steeped in controversy. The social structure was becoming fragmented and gaps between the more and less affluent families increased. The changes brought about by the technology and economic development in Sibalew failed to reassure locals about the threats progress represented to traditional cultural practices. The natural environment of the barangays was also changed by development. The accounts from locals provided detailed information about complex arguments over what occurred in the actual situation, contradicting some stated aims of the policies in extension programmes. There was also a gap between what the College had expected from the technologies introduced, and the actual effects of development in the barangays. In particular, in Sibalew, the locals felt that economic pressures continued to grow, some traditional cultural practices were displaced, and the natural environment was threatened by the development of this barangay.

The integration of various development programmes from local and national government agencies enhances development, but also brings consequences to the local social structure and natural environment. The intervention replaced the old farming methods based on family subsistence by the capital-intensive method for commercial production. The farms and orchards expanded, but the slash-and-burn farming method continues to convert the hillside land into orchard plantations. The traditional knowledge of locals of subsistence farming methods was displaced by knowledge of modern technologies. The contour hedges for hillside farming were introduced to address soil erosion problems and to protect the environment, but required a large amount of labour and this became a major issue.

There were conflicting arguments over what the College expected to achieve with the development and what locals thought about the impact of the modern technologies. From the College’s perspective, the change of rural lifestyle, especially in Sibalew from a backward to a modern way of living was a positive transformation, but some locals had different views. The case studies showed the effect of economic development in the social structure increased inequality in the barangays. Unequal distribution of land, variations in sources of income and others having limited power to access outside economic opportunities were critical factors in the uneven distribution of economic opportunity that were emphasised in the case studies.
Other arguments raised were related to the local cultural practices in conflict with the modern technologies such as electricity and the access road, especially in Sibalew. From the elders' perspective, television advisements and the use of stereo sets undermined the traditional cultural practices that they wanted to preserve. The access roads dissected the natural landscape of their barangay. From the Sibalew farmers' perspective the continued practice of slash-and-burn of hillside land was a direct result of the expansion of orchard plantations for commercial production, and that benefited the local traders. From the Sibalew women's point of view, the household income doubled, but they needed more money due to the increased spending on food, health and education, and to pay their monthly electricity bills. Finally, from the young peoples' perspective the economic opportunities and amusement facilities in the barangays were limited. They were not as good as those in town. These findings indicate the economic growth of Sibalew that was needed to meet the demands of locals. Adopting a modern lifestyle was interdependent with the outside economy and political intervention from the media.

The findings of this thesis suggest that the leadership style, especially the 'charisma' of the barangay captain or headman, strong alliances of locals with the College and the support from linkage agencies, as well as appropriate funding and the duration of extension services, are the key elements crucial for the College to achieve successful results for their extension programmes in the barangays. The diversity of the social structure, existing livelihood of locals and access of locals to economic opportunity outside their barangay should be taken into consideration when introducing the demonstration farms and other livelihood projects. The appropriateness of introduced technologies to the geographical conditions, existing farming practices of locals, cultural practices in the barangay, and the intergenerational problems in technology-transfer are crucial when designing new extension methods and demonstration farms in the barangay.

The local social network and the market support services need to be integrated in the extension services of the College. The linkage mechanisms between barangays, the College and linkage agencies were complicated, so that the monitoring and evaluation of the individual programme needed to be designed properly with the participation of locals in the evaluation. The interaction of each of the three barangays with the College and linkage agencies are crucial and need to be strengthened in research and extension programmes.
Finally, the thesis concludes that issues related to access to, and control of resources; particularly the different power relationships involved in men and women’s access to development; intergenerational problems in technology-transfer and the consequences of development on the traditional cultural practices of locals and natural environment are the key elements that need to be addressed in extension policies. The ‘top-down’ approach is still the dominant approach in the extension programmes of the College, but the application of this approach in the extension programmes has many shortcomings. However, the difficulties encountered by the locals, extension staff, college faculty, students and other actors from linkage agencies also provide opportunities for growth. These could mean new insights for the College and other institutions engaged in similar programmes in rural development, which in turn could develop into a more appropriate approach in addressing the complex social, political and environmental problems in rural areas in the Philippines.

1.2 Overview of the Thesis

This thesis is composed of three parts. It is presented in two volumes and concerns rural transformation and the adoption of agroforestry innovation in the Philippines. Part One consists of six chapters. They provide the basic concepts and procedures describing how the researcher undertook this thesis. In this section, questions, arguments and some findings of the thesis are briefly described. The research method that was used in the case studies and the methodological issues regarding Rural Appraisal that were examined in the literature are described. Accounts from the researcher on the lessons learned from the case study barangays are also highlighted. The diffusion model and the ‘putting people first’ approach that guided the policy of extension programmes used in agricultural colleges and other government-run training institutions in the Philippines are described.

Following this is a brief chapter containing background information on the Philippines and the origins of rural development programmes are also described. Next, the cultural practices of Filipinos in the rural areas are examined. In this chapter, culture in the Filipino context is defined. A brief description of the historical development of the cultural values of the Filipinos and the cultural elements that shape present Filipino cultural practices are discussed. The discussion helps to clarify the cultural influences on Filipinos interaction with the diffusion model and the ‘putting people first’ approach
which the extension methods of the College draw on. In particular, issues such as cultural values, Filipino bureaucracies and institutional factors combined to affect implementation of national development programmes in rural areas. Finally, the last chapter is the concluding statement for the case studies which brings together issues and complex problems examined in the literature. The enduring problems in social, economic, cultural and political parts of life that are associated with the slow economic growth of the country are highlighted. This chapter ends with a conclusion outlining five major issues that led to increased inequality and hindered closing the gaps between rich and poor in the case study barangays.

In Part Two, the first section presents the Sibalew case study and the second, the Linayasan case study. The Sibalew case study examines the introduction of agricultural technology and the resultant sociocultural transformation of rural lifestyles in this barangay. In the Sibalew case study, the advantages and disadvantages associated with the economic changes that occurred in Sibalew over fifteen years are discussed. Following the section on Sibalew, the Linayasan study examines the prevailing local conditions and the initial introduction of agroforestry projects to this barangay. The Linayasan case study also illustrates an example of the complications that exist in the economic activities of the project beneficiaries when they attempt to adopt new methods to improve their earning capacity. Their existing sources of income compete with the introduced technology, and many farmers prefer less labour-intensive forms of farming, to adopting innovation like Sloping Agricultural Land Technology, which demands high levels of manual labour. The result of this case study indicates the critical roles of various actors in the introduction of development projects in Linayasan.

Part Three is a discussion of the findings of the case studies related to national development programmes introduced in rural barangays and the conclusion of the thesis. The lessons learned in the case studies are discussed in this part of the thesis. The discussion focuses on the six major subject areas crucial to those who are interested in issues about inequality in development and others involved in the implementation of rural development projects, especially in the Philippines. First, the discussion covered the persistence of the conventional extension methods and associated issues are discussed. Second, the three examples of the national development programmes were implemented through the extension programmes of College in the case study barangays. Third, the
barriers that hindered the participation of locals in development projects examined in these three barangays are described. Fourth, the local cultural and intergenerational issues which influenced technology-transfer based on the findings of the case studies are discussed. Fifth, the importance of the institutional alliances in development projects are examined. Finally, the last subject area discussed is to relate the recent suggestions of FAO (1997) to the findings of the case studies because they are crucial to the extension programmes of the College. The complex problems associated with the institutional alliances in development projects and the complications of cultural practices, institutional alliances and political patronage are emphasised in the discussions. All those elements affected the pro-active role of the College by applying external pressures on the implementation of their extension programmes.

The final chapter of Part Three is the conclusion of the thesis. In this chapter, the findings of the Sibalew and Linayasan case studies are consolidated and discussed, as are the findings of related studies on rural development. The purpose of this discussion is to articulate issues and offer suggestions as to why some development projects were successful and others were less effective in the rural Philippines, particularly in Aklan province. The complications that arose between the cultural practices, institutional alliances, political patronage and the critical role of participation by locals in monitoring and evaluating development projects are emphasised. The importance of the diffusion model and the ‘putting people first’ approach in the extension programmes of the College is emphasised, in particular, the significant issues and problems inherent in the ‘top-down’ and ‘bottom-up’ approaches. They have contradictory characteristics such as in their goals and procedures of achieving technology-transfer, as illustrated based on the experience of various actors involved in the development of projects introduced in Sibalew, Feliciano and Linayasan. The application of the ‘top-down’ approach remained a dominant method when agricultural technologies were introduced to those three barangays. The discussion ends with the conclusion that there are many issues and complex problems that need a greater understanding so we might learn why some demonstration farms introduced in Sibalew, Feliciano and Linayasan were successful and others were less successful. The projects have been a learning process for the College staff as well.
In concert with the findings of this thesis, there are five major issues drawn from the literature that are described in the last part of the conclusion. This is to elucidate the complex problems and importance of the diffusion model and the ‘putting people first’ approach for the College in implementation of various programmes in solving problems of inequality in development. The first issue concerns the existence of bias in national development programmes. The second issue concerns the social, cultural and political practices of Filipinos that influenced the unequal access to benefits from the development programmes. The third issue pertains to the adverse effects development had on the local social and economic structures which increased inequality. The fourth issue concerns the consequences of economic and technological change brought about in rural areas that changed the traditional cultural practices of locals and destroyed more of the natural environment. The final issue that is related to the inquiry of the thesis is that the diffusion model remained dominant over the ‘putting people first’ approach in the implementation of extension programmes of the College. All these issues concern inequality in development and hindered the process of closing the gaps between the rich and the poor in rural areas.
Chapter Two
Research Methods and Methodological Issues

2.1 Introduction
This chapter presents the research method that was used in the case studies. The 'methodological issues' section will describe the problems concerning Participatory Rural Appraisal (PRA) that have been identified by various authors and which need to be addressed when conducting case studies. Accounts from the researcher on the difficulties and challenges that were an integral part of this thesis are highlighted. Reviewing issues in the PRA gave the researcher basic concepts and understanding so that he could conduct fieldwork that allowed the locals to voice their experiences, concerns and problems.

2.2 The Research Process
There were several distinct stages in the collection and codification of material before this thesis was completed in 2000. The thesis was started on the 15th of October 1995, at Lincoln University, where the researcher had undertaken his Master's Degree in Agroforestry. However, because the researcher was drawn to the complex problems that affected the success or failure of development projects in the Philippines, the focus of the study was changed from technical to social aspects that are an integral part of technology development and transfer in rural communities. To address the social issues, the researcher changed his study to concentrate on the sociology of development at the University of Canterbury on the 15th of October 1996.

This thesis started with the literature review and the writing of a thesis proposal and procedures and strategies for conducting the case studies in the Philippines. The literature review provided fundamental information for the researcher on some of the concepts, issues and problems that were to be addressed during the fieldwork of various case studies. On the 12th of December 1997, the researcher returned to the Philippines and undertook the fieldwork for the case studies. The fieldwork was for a seven-month period, from the first week of January to the end of July 1998. Before the fieldwork could be undertaken, various procedural and administrative protocols had to be put in
place. For example, letters had to be sent to various individuals and organisations to gain their permission to conduct interviews and collect documented information for the thesis. The bureaucratic process was complex and required well-organised and exacting forward planning. Access to various organisations and individuals was granted in many instances because of the researcher’s previous associations, familiarity, and because of the general cultural empathy he displayed towards respondents.

The fieldwork activities were divided into three phases. In the first phase, the researcher conducted the PRA exercises in the case study barangays of Sibalew, Feliciano and Linayasan. The second phase was when the researcher undertook interviews with staff and faculty members involved in the development of Barangay Laboratory Demonstration Projects (BDLPs). This included the collection of previous reports and documents related to the College outreach projects and extension programmes. Finally, the third phase of the fieldwork focused on interviews with representatives from other government and non-governmental agencies within the Aklan province who participated in the outreach projects and the development of the demonstration projects assisted by the College in rural barangays.

In the first phase, the researcher stayed in each of the three barangays and lived with the locals for a period of two months. He conducted various activities with groups of farmers, women, young people, barangay officials and local traders. There were informal interviews, group discussions, mapping exercises, meetings with local officials and individual follow-up interviews conducted with different groups of locals in the three barangays. The researcher undertook those various activities with the help of key informants, using snowball-sampling techniques. Individual interviews were tape-recorded with the consent of the interviewee and kept confidential. Tape-recorded interviews were transcribed by the researcher from the local dialect into English. Transcripts were incorporated with the field observations to describe the experiences of locals on the various projects introduced to their barangays.

Secondary and historical documents about demographic conditions, health, education and other information were collected from the records of the barangay council. The interviews and group discussions were held in various places that were convenient for the participants, to avoid interrupting their daily activities. The researcher had also observed
closely the participation of locals in various activities undertaken in the barangays. Of particular interest were the interactions between participants during the mapping and group discussion exercises. This was necessary to identify those who participated actively and those who did not. Those who did not participate were encouraged to explain their reluctance. The social interaction between participants, as well as with the researcher, and the evidence from numerous observations provided a considerable amount of valuable information on the various activities of the locals. This information was helpful to the researcher in order to understand the ordinary daily life of the locals. In this thesis, the researcher acknowledges the significance of the knowledge of locals regarding the success or failure of projects introduced to their barangays. Therefore, it is argued that the role of the researcher of this thesis is to bring the knowledge shared by the locals to the attention not only to senior academics, but also to planners, policy makers, administrators, researchers and extension workers. The information shared by locals and other participants during fieldwork was valuable. The locals provided opinions that helped identify issues and complex problems that were described in the case studies of this thesis.

After the first phase of fieldwork was completed in the three barangays, the researcher focused on gaining interviews with the staff and faculties of the College for phase two. The collection of data on previous project reports, annual reports, student outreach reports, theses and articles were an integral part of phase two. Important information from those documents was photocopied and filed for evaluation and used in the writing of this thesis. Because of the limited period allotted for the second phase of the fieldwork, less than two weeks, the interviews focused only on the staff and faculty members of the College who had been involved in the development of the BDLPs. The interviews were focused on the issues and problems of previous and current extension programmes of the College which established demonstration projects in rural barangays. Interviews were conducted both formally and informally using an unstructured questionnaire. Issues related to the complex problems encountered when the College went to implement their extension policies and approaches concerning the introduction of development projects were the main focus of the interviews. The subject areas discussed with staff and faculty members included local leadership, participation of local people in the development process, gender access, control of resources and the criteria used in the selection of farmer co-operators. The distribution of project benefits, changes in local
farming practices and other issues related to social, cultural, political relations, including the power relations in technology transfer, were also discussed during the interviews.

Those aspects were discussed with the Director of the Research and Extension Services of the College. The previous Assistance Project Implementing Officer who initiated the Outreach Agricultural Education Projects (AEOP) in Sibalew in the 1980s was also interviewed. The previous Director of the Foundation for Youth Development Programme (FYDP), who implemented the College’s non-formal education programme, were also interviewed to elicit their ideas and opinions on the various aspects outlined above. There were separate interviews also conducted with the Director of Higher Education and the Director of Research of the College to obtain information about their objectives, strategies, sources of funding, future plans and the involvement of their departments in the development projects assisted by the College in rural barangays. A separate interview was also conducted with the President of the College to get a general idea of the previous outreach projects and their current extension programmes in rural barangays. All the interviews were conducted in the College and with the consent of the interviewees. Some were recorded and kept confidential. Information that was gathered from staff and faculty members interviewed was compared with information shared by the locals in the three barangays. The purpose was to develop a theme that explained the sociopolitical relationships revolving around the groups of actors described in part two of this thesis, the Sibalew and Linayasan case studies.

Finally, the third phase of fieldwork focused on interviews with representatives from government and non-government agencies within Aklan province who were the linkage agencies of the College. The agencies encouraged the College to develop outreach projects in Sibalew and Feliciano and established demonstration projects in Linayasan. The key questions discussed with the College actors were also used to guide the interviews with the representatives of the linkage agencies. However, the discussion concentrated on the role of the agencies and their links with the developmental programme of the College in rural barangays. Employees from offices of the Department of Agriculture (DA) and the Department of Health and Social Welfare (DHSW) were interviewed. Two Municipal Mayors were also interviewed as the representatives of the Department of Local Government Units (DLGUs). Representatives of the Department of Natural and Environmental Resources (DENR) and the Department of Agrarian Reform...
(DAR) were interviewed to discuss land tenure issues in rural areas. The researcher also conducted interviews with the representative from the provincial office of the Department of Science and Technology to discuss issues concerning technology development and transfer, as well as their linkage programmes with the College. Other interviews were conducted with the representatives of the Land Bank and Rural Bank of the province to discuss the access of the local farmers to credit or loans. There were local officials and religious leaders in Catholic Organisations who shared their opinions about the causes of the success or failure of projects during informal discussions. Finally, there were local middlemen buyers and suppliers in town and in the barangays who were interviewed about their businesses and their opinions on the development projects assisted by the College.

The fieldwork was completed within the timeframe designated for the Philippines. There were two major interruptions in the fieldwork at Sibalew, Feliciano and Linayasan which affected the schedule of the interviews and group discussions was affected. The first intervention occurred in Sibalew when Jose Ingalla, the barangay captain or headman of the village, died in an accident on the 16th of February 1998. The second delay was caused by the May 11 National Elections in the Philippines.

The death of Jose Ingalla disturbed the locals in Sibalew. Some of the interviews and group discussions were rescheduled. The death of Ingalla brought sorrow to the barangay locals, the College staff and faculty members. The accident was devastating for the locals. Although the death of Jose Ingalla was distressing for the researcher, the accident did however provide the opportunity for substantial insights into the social, cultural and political practices that the locals had not mentioned during interviews or conversations. Observations by the researcher of the various activities locals participated in when showing their sympathy and respect to Ingalla's family provided new perspectives on the importance of cultural and political elements. The interaction that occurred during this time provided the researcher with a greater understanding of how the mutual relationship between the Sibalew locals and the College staff members was established. These observations allowed the researcher to understand more fully how social capital had been developed between the Sibalew locals, the College and the linkage agencies.
The second major intervention in the fieldwork was the May 11 National Election in the Philippines. The political campaign before the National Elections disrupted the fieldwork in Sibalew, Feliciano and Linayasan. For instance, the radio news and the conversations of locals were focused entirely on political issues. The different policies of various political parties were often discussed before the interviews and group discussions commenced, extending the time taken for that part of the fieldwork. Prolonged discussions over politics reduced the time scheduled for interviews and group discussions and some questions were not covered. The researcher had also experienced political threats from some members of different political parties. There was an attempt to subvert the purpose of the fieldwork to focus on interviews with members of the ruling political parties and to ignore the opposition political parties. This created difficulties when interviewing employees of some government offices. The National Election affected the whole Philippines and various brutal incidents occurred in Aklan and other provinces. After the election, the political issues remained the focus of attention for locals. The National Election was a major inconvenience when engaging in the fieldwork but the various events that happened before and after the election provided considerable insight into the culture of politics and the crucial roles of elected officials in the development process. This experience was the essence of the fieldwork of this thesis. The researcher was present in the barangays at a time of considerable importance for local people. The observations provided valuable information that required a close analysis to understand some of the political issues associated with the introduction of demonstration projects in Sibalew, Feliciano and Linayasan.

In 1998, during the last week of July, the fieldwork was completed in the Philippines. The researcher returned to the University of Canterbury, New Zealand, to analyse the results of the case studies and to write this thesis. The results of the fieldwork were analysed and the transcripts of the interviews and field notes were coded. A descriptive analysis and a narrative of the development projects were produced. This included the accounts from locals, staff and faculty members, and representatives from linkage agencies of the College. The analysis used in the researcher's discussions was initiated by reading the works of various authors to gain an in-depth sociological understanding of the events that occurred during the fieldwork. There was close scrutiny of the relationships between the accounts from locals, staff and faculty members and the barangay officials. Accounts presented by other people interviewed at the College
linkage agencies were also incorporated in the analysis to distinguish issues and complex problems concerning technology development and transfer in the three case study barangays. Books by various authors were examined to gain basic concepts, procedures and theories to guide the fieldwork activities and the writing of the case studies.5

A comparison of the results of the Sibalew and Linayasan case studies, noting similarities, differences, historical backgrounds and the results of the demonstration laboratory projects assisted by the College in these barangays was more readily produced after reading C. Wright Mills’ (1959) *Sociological Imagination*. Mills insisted that:

The sociological imagination enables its possessor to understand the larger historical scene in terms of its meaning for the inner life and the external career of a variety of individuals. It enables him to take into account how individuals, in the welter of their daily experience, often become falsely conscious of their social positions. Within that welter, the framework of modern society is sought, and within the framework the psychologies of a variety of men and women are formulated. By such means the personal uneasiness of individuals is focused upon explicit troubles and the indifferences of publics is transformed into involvement with public issues (Mills, 1959: 5).

Mills further described that:

... every individual lives, from one generation to the next, in some society; that he [or she] lives out a biography, and that he [or she] lives it out within some historical consequence. By the fact of his [sic] living he [sic] contributes, however minutely, to the shaping of this society and to the course of its history, even as he [sic] is made by society and by its historical push and shove (Mills, 1959: 6).

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5 This included works by Yin (1994 and 1993), Richlin-Klosky and Strenski (1994), Gilbert (1993), Shaffir and Stebbins (1991), Whyte (1991), Bauman (1990), Kvale (1990), Lofland and Lofland (1984), Becker (1986), Patton (1987) and Schatzman and Strauss (1973). These authors provided basic information for the researcher which helped him to develop a theme from the accounts of various actors and the participant observations and provided the theoretical basis for the discussion and analysis of the fieldwork of the case studies. The experiences of the researcher when living with locals in the three barangays also expanded his perspectives. The books by Mosse and Farrington (1998), Brohman (1996), FAO (1995a and 1995b), Lewis (1992), Gabriel (1991), Wignaraja (1991), Campbell (1990), Hyzer (1987) and Long (1977), and articles by Michner (1998), Biggs and Smith (1998), Thompson (1995), Bentley (1994) Merrill-Sands and Collion (1994), Sierra (1989), Axinn (1988), Molnar and Jolly (1988), Shaw (1987) Cohen and Uploff (1980) and Smelser (1971) were also referred to. Those sources of information provided a foundation for the discussion of the significant issues and complex problems in technology transfer and the sociocultural transformation that resulted. The changes indicated that another level of development, with associated difficulties, was emerging in Sibalew. The interim results of the introduction of demonstration projects are discussed in the Linayasan case study.
The Sociology Writing Group at the University of California, Los Angeles also emphasised that “[using] the sociological imagination means recognizing the connection between individual, private experience and the wider society... Applying sociological imagination... expands your perspective... [It allows one]...to see where your experiences... fit into the social world in which you live, the history of which your biography is a part” (Richlin-Klonsky and Strenski, 1994: 11). In this thesis, the application of the ‘Sociological Imagination’ allowed the researcher to bring forward his previous experiences and involvement when the College started to establish demonstration laboratory projects in Sibalew in 1983. Previous experience when a similar project was initiated in Feliciano in 1989 was also useful. The experience of the researcher during that period in those barangays is the basis of the historical comparisons which evaluate the previous and current policies of the College’s extension programmes. In particular, issues and complex problems found in the two methods, the ‘top-down’ and ‘bottom-up’ approach, in technology development and transfer which are discussed in final chapter of the thesis draw on the researcher’s previous experience.

Shortly after reading Mills there was a major interruption to progress. Due to the researcher’s health concerns for his family in the Philippines, it was necessary to take compassionate leave for two months to return back home to take charge of proceedings. In 1999, on the 15th of May, the researcher returned back home to Aklan. The occurrence of such unpredictable circumstances was depressing for the researcher. However, the circumstances provided an opportunity to present the preliminary results of the case studies to the staff and faculty of the College and locals in Sibalew, Feliciano and Linaysan. On the 13th of July 1999 the preliminary results of the Linaysan case study were presented to the staff, faculty members and postgraduate students of the ASCA.

The purpose of the presentation was to solicit comments from the participants and further, to elicit views about the issues and aspects of rural development that needed to be addressed in the final stages of the case studies. There were discussions also with the Director of the Research and Extension Services of the College to verify the preliminary results of the Linaysan case study. The findings of the case studies were also discussed with the Director of Higher Education and the Director of Research of the College to solicit their comments and suggestions on the sensitive issues raised in the case studies. The researcher also engaged in additional discussions with some locals in Linaysan and
Sibalew and discussed the preliminary results of the case studies to stimulate comments from them. The responses to the presentations were very useful and various issues emerged for the attention of the researcher. Issues of a social, economic, cultural, political and technological nature emerged in discussions with staff and faculty members and the postgraduate students of the College, as well as locals. The researcher then returned to the University of Canterbury on the 16th of July 1999 to continue writing.

Overall, the presentation of the interim results of the case studies to the College staff and faculty members, and the follow-up discussions with some locals of Sibalew, Feliciano and Linayasan validated the initial findings of the case study. Their opinions and suggestions expanded the existing ideas of the researcher, especially issues and complex problems that were linked to bureaucracy, and the cultural behaviour of local officials and local people. The researcher also gained a greater understanding of the politics involved in the participatory methods of technology transfer in rural barangays. As the result of the presentations, the researcher was provided new perspectives on the significance of the traditional cultural and political practices that needed to be critically addressed in the course of this thesis.

The *Sociological Imagination* by C. Wright Mills was used in the analysis when examining the issues and comments made during and after the presentation of the case studies in the Philippines. This was combined with a cross-cultural analysis based on the experience of the researcher after having lived over seven years in New Zealand. Social interaction with different ethnic groups in New Zealand, and experience of cultures in other countries, provided an opportunity for the researcher to examine and articulate aspects of cultural values, behaviours and other traditional practices in his own country that were crucial for the success of development projects. In other words, experience outside the Philippines enabled the researcher to gain a new perspective on the culture that he was familiar with and had been immersed in. Examining previous errors and practices was necessary in order to learn from the past to reduce the repetition of the same mistakes, although many scholars are reluctant to do so.
2.3 Methodological Issues

Participatory Rural Appraisal (PRA) was the method used in the case studies of this thesis. This method provided the researcher with a range of flexible techniques for exploring social events that evolved in the data-gathering process when fieldwork was undertaken in the Philippines. PRA\(^{6}\) was proven to be a powerful approach to participatory research when examining social change brought about by new technology in rural communities (Yeich, 1996; FAO, 1995a and 1995b; Gallardo et al., 1995; Gosselink and Strosser, 1995). PRA provided the researcher a depth of understanding about the social practices of local people using various techniques (see Chambers, 1994a: 959-961). This was especially useful during interviews, group discussions, meetings and informal social gatherings such as attending religious cultural activities during fiesta. It also provided an opportunity for the researcher to immerse himself in other unexpected events like the May 11 national election and the death of the Sibalew barangay captain.

The strength of PRA for exploring those activities mentioned above lay in the flexibility of techniques suitable for social interactions between the locals and the researcher (Gosselink and Strosser, 1995: 25). Chambers (1994c: 1441) described how practitioners learned in the field from their own experience. This came from being free to handle problems and learning from mistakes. He argued that the strength of PRA did not depend on books of instruction, but was based on the principles of “personal commitment, critical awareness, and informed improvisation, which have best assured quality and creativity” (Chambers, 1994c: 1441).

Gosselink and Strosser (1995: 25) argued that such problems should be addressed by determining “who participates in and who decides and benefits from the participatory process.” But Gosselink and Strosser mentioned that PRA lacked standard guidelines and recommendations. They argued that the strength of PRA lay instead in its flexibility. This did not mean that this method did not have a certain level of rigour. It did this by

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\(^{6}\) PRA involves principles of facilitating rapport, the sharing of information and critical self-evaluation of the behaviour and attitudes of the researchers (Chambers and Guijt, 1995: 5). The framework of PRA allows for the existence of errors and it welcomes opportunities to learn from local people’s knowledge and judgment (Chambers, 1994a: 959-961). Researchers must accept responsibility personally, rather than vesting it in a manual or a rigid set of rules (Chambers 1992: 15).
combining three methods through (1) active intervention, (2) management and observation of process and (3) exercising critical judgement (see Gosselink and Strosser, 1995: 25; Chambers, 1994b: 1261).

Jiggins (1994: 139-143) argued that there was a possibility that PRA could be used as an expert-driven, ‘top-down’ method, and was just as extractive as the methods of the dominant paradigms if it was not used properly. The assumption was usually made that PRA was inherently good. Therefore, less attention was given to the analysis of participant interaction and power relations during PRA exercises. Other critiques described the weaknesses of the PRA in different ways. More professionals than local people were usually involved in the PRA team. The qualitative data gathered during the PRA exercises had not often been used because the policy and decision-makers had a normal inclination toward ‘hard’ data which is easier to interpret (Gosselink and Strosser, 1995: 22).

Many aspects of PRA discussed in Beyond Farmer First were taken into consideration by the researcher during the fieldwork (see Scoones and Thompson, 1994). Scoones and Thompson described how gathering information using the participatory approach was surrounded by ethical as well as sociopolitical problems. In particular, this applied to the power relations that existed within the structure and policy of development institutions, as well as between groups of local people, local leaders, tenants and landlords in rural communities. This also referred to communication networks between rural communities and development agencies. Power relations were associated with cultural behaviour and politics that affected the networks linking rural people and development agency personnel (Holland and Blackburn, 1998; Blackburn and Holland, 1998; Chambers, 1997). The researcher also encountered the issues aforementioned in Sibalew and Linayasan. It was especially true in Feliciano where politics was a dominating concern for locals. Politics was a major issue that prevented most disadvantaged locals interviewed and also those people in the group discussions from voicing their grievances or opinions.

The literature showed that there were also problems in the management of local resources and identification of livelihood priorities and strategies, as well as in defining changes in household activities (Scoones and Thompson, 1994). All of these problems
included gender relationships, as well as class and status relationships. The power inherent in local politics was observed in individual interviews and group discussions when gathering information for the case studies. It was observed that individuals or groups with strong political affiliations denied others the opportunity to share ideas and opinions (Freudenberger, 1994: 124-133). In particular, it was apparent that political power was exercised over access and control of resources, opportunities and privileges and was a substantial concern for locals. Others disaffected were government employees who knew of, but had limited access to, the benefits and services provided by the government. Such observations provided new insights for the researcher on the pervasiveness of power relations within communities and institutional settings.  

The issues mentioned above were given due consideration in the Sibalew, Feliciano and Linayasan case studies by using questions that were emphasised in Beyond Farmer First (Scoones and Thompson, 1994: 4). First, the respondent was asked the question: *Who knows* about this issue? This was followed by: *Who does not know* anything about the issue? Then the information was examined by asking: *Why do you not know?* (see also Cohen and Uphoff, 1980: 213-235). Those questions were modified to suit the social conditions and situations that occurred during the individual interviews, group discussions and in informal meetings with locals in Sibalew, Feliciano and Linayasan. Similar sorts of questions were used to guide the researcher when interviews were undertaken with College staff and faculty members, students and representatives from other agencies involved in demonstration projects.

7 The literature showed that the same kind of participatory research undertaken by the researcher of this thesis, had been used by multidisciplinary teams when eliciting the problems and needs of local people in various development projects in the Philippines (see Eponou, 1993). This was seen as an essential requirement when introducing new technology to rural communities, especially in large, well-financed development projects like the irrigation projects in the Philippines described by Thompson (1995). Projects like these were usually funded by foreign aid institutions and included employment experts and rural development specialists who were members of multidisciplinary teams that conducted PRA activities (see Gosselink and Strosser, 1995). In the Philippines, the researcher knew from previous experience that employing multidisciplinary teams with large numbers of experts and rural development specialists in rural barangays introduced subordination and inferiority of locals, who became reluctant to raise critical ideas or opinions. Eric Dudley (1993: 10) in The Critical Villager: Beyond Community Participation, argued that the "creation of such teams is not, in itself, the answer to the problems of complexity." He further notes that the "multidisciplinary team can easily become a paper-term which screens the reality of a disparate set of individuals working as they always did, in isolated professional pigeon holes" (Dudley, 1993: 10).
The literature on PRA showed that the development of this method was a tool to spread the principles of the 'Farmer First Approach' in rural development programmes (Scoones and Thompson, 1994). This stressed the 'bottom-up' approach where researchers learn from local people, have an awareness of values and behaviour and then take realistic action in tackling rural poverty. However, Chambers (1994d) argued that many scientists, teachers and extension officers are unfortunately still trapped in 'top-down,' centre-outwards institutions. These promote the transfer of technology, thinking and action, where 'we' determine priorities, generate technologies and then transfer them to farmers, and where farmers are limited to adopting plans, rather than creating them. The concern of Chambers was that “all too easily the farmer-first label and the rhetoric of participation have been adopted without the substance” (Scoones and Thompson, 1994: viii).

Freudenberger (1994: 124) warned researchers to use the participatory approach carefully because it may lead to a dangerous complacency if they begin to think that good information can be easily or automatically obtained. The information described above by Freudenberger encouraged the researcher of this study to try to establish a good rapport in the barangays. The series of informal discussions with locals was helpful and allowed them to express the concerns and complex problems they had experienced in their barangay. There was some indication that good rapport had been developed because the locals felt free to voice their concerns, opinions and share their experiences in group discussions and informal meetings. However, during observations it became apparent that in individual interviews, group discussions or even informal meetings, the locals were apprehensive when raising critical issues. The researcher noted that new issues emerged that were of interest or concern to locals all the time. In particular, there were expectations from locals that because the case studies were undertaken in their barangay, there also existed an opportunity for more assistance from the ASCA where the researcher had been employed. The expectations of the locals of assistance from the College threatened to undermine the good rapport of the researcher in the barangay.

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8 Together with researchers, the locals conduct their own evaluation and analysis of the changes that the development projects have brought to their community. The role of the researcher is to serve as catalyst, facilitator and conveyor during the research process (Pretty, 1995; Scoones and Thompson, 1994: 16-32; Drinkwater, 1994: 32-41; Long and Villareal, 1994: 41-52, see also Chambers, 1994b and 1994c).
Freudenberger (1994: 28) argued that spending a short period of time conducting PRA in a community may lead the researcher to overlook the interests of other local people who were not around during the fieldwork. He noted that this introduced a systematic bias against the others, for example, husbands, wives and children who were doing wage-labour and who lived outside their community seasonally. This problem was also observed when the researcher conducted the PRA in Sibalew, Feliciano and Linayasan.

In those barangays, particularly in Feliciano and Linayasan, there were many family members living in Manila or working outside those barangays. However, they were still closely connected with their relatives and had some influence in Feliciano and Linayasan, where their relatives and families lived. The researcher noted that the issue mentioned above was directly related to gender participation and that women were the majority of the participants when PRA activities were conducted in those barangays. This was because most of the men were preoccupied with their work outside their barangay and did not have enough time to entertain individual interviews or group discussions. This relates to the issue of the bias against those people who had not participated in PRA activities. During the fieldwork, the researcher had spent more time talking with families and also asking questions of them regarding the contributions of their family members or relatives who were temporarily living outside their barangay. The previous involvement of the researcher, especially in Sibalew and Feliciano, provided additional information and understanding of the complexity of these issues.

Another issue Freudenberger encouraged the researcher to consider was rules, both government and the customary rules followed by local people participating in development projects (Freudenberger, 1994: 129). It was important that researchers understood these rules clearly. The management of natural resources in communities “always involves a combination of state rules and local rules/practices” (Freudenberger, 1994: 129). Freudenberger explained that researchers needed to understand how these different rules worked in communities. Researchers may have had a bias that worked against fully understanding those rules, particularly in the arrangements made between development institutions and local people. One reason for that, was that most researchers were government employees. In most cases, this implied that the research was often based on a broad agenda set by the government. Funding often depended on this link. Freudenberger (1994: 129) argued that, “some researchers may glorify the effectiveness
of indigenous practices and see them as entirely self-sufficient when, in all likelihood, they interact considerably with state provisions, whether the result is defiance or conformity.” Freudenberger argued that political issues were always associated with changes in communities. Freudenberger argued also that, “in natural resource management, (similar to the management of development projects), tenure and the distribution of rights of access are inherently political issues” (Freudenberger, 1994: 129). The researcher confirmed those arguments of Freudenberger, and agreed that regardless of what issues were involved in the management of resources, there could always be an active attempt to undermine the flow of information by various interested parties.

The PRA activities and often the researchers themselves when using this method (especially when foreigners were part of the data-gathering activities) could create high expectations in local people (Gosselink and Strosser, 1995). Mosse (1993, cited in Gosselink and Strosser, 1995: 25) argued that the information generated though PRA was strongly influenced by the fact that this method involved public social happenings that developed local knowledge, which in turn reflected the existing social relationships involving power and gender.

In the collection of data for the case studies of this thesis, the role of the researcher as an insider and an outsider was a critical issue. The participants who were going to participate in PRA activities already knew the researcher from his work in the demonstration laboratory projects. The researcher acknowledged this was an important matter affecting the quality of the data gathered, because of his social connections with locals in the barangays. The researcher of these case studies was also connected with the ASCA that implemented the demonstration laboratory project, and this association increased the ethical difficulties of the researcher. To overcome this issue the researcher had to act as a facilitator or catalyst, and trust local people to act as partners or analysts.

In particular, the researcher noted that the willingness of some locals to participate in organised interviews, group discussions and meetings was driven by their desire to get access to resources and support from the College. This may have been their major motivation rather than providing critical information about the impact of the BDLPs in their barangay. This could lead to biased information from the participants. The
researcher presented his role and the purpose of the case study to participants before commencing his work, in an effort to minimize biased information. The researcher gave considerable attention to the local knowledge of participants. Critical attention was also given to interaction between participants, especially those who did and those who did not actively participate during PRA activities. The combinations of those techniques mentioned above provided a new perspective to the researcher to identify any gaps or links between participants and enabled him to discuss such information in the case studies.
Plate 1. Examples of Participatory Rural Appraisal Activities. Upper left: group discussion and mapping exercise with Sibalew barangay officials, led by Cesar Ingalla, the incumbent barangay captain. Upper right: the group in Feliciano who were farmer co-operators for the College on the demonstration projects. Middle left: the researcher conducting a tape-recorded interview with a Sibalew farmer. Middle right: group discussion with Sibalew women. Lower left: group discussion and mapping exercise with Piña Fiber Weavers and Producers in Feliciano. Lower right: an interview with a Sibalew woman cooking and selling home-made food (Photo: R. L. Saladar and R. Reontoy, 1998).
2.4 Conclusion

The comments and concerns of the critics were kept in mind or addressed when conducting the case studies and this was discussed within this chapter. In general, this thesis was undertaken through a number of steps. It involved challenge and was a worthwhile effort for higher academic learning. The process included fieldwork activities to elicit, articulate and to understand the concerns, issues and complex problems of technology-transfer in the broader context of development in rural communities. The work included a review of the related literature and previous studies.

The fieldwork activities that the researcher undertook in the Philippines were described in this chapter. This was divided into three phases within an overall timeframe of seven months. The first phase was the PRA exercises that were conducted in Sibalew, Feliciano and Linayasan. The second phase concentrated on interviews with staff and faculty members involved in the development of the demonstration projects of the College. The second phase also involved the collection of previous reports and documents related to the College outreach projects and extension programmes. Finally, the third phase of the fieldwork focused on interviews with representatives from government and non-governmental agencies, and the College's linkage agencies, in the establishment of demonstration projects in rural barangays.

In the Philippines, while fieldwork was completed on schedule, there were two major events that had a significant effect on the researcher when gathering information in the three barangays and the government offices. One event was the premature death of Jose Ingalla in Sibalew. The death of Jose Ingalla upset Sibalew locals. The schedule of the interviews and group discussion was altered accordingly to accommodate their grieving process. The other major event was the National Elections in the Philippines. This event created tension amongst many Filipinos due to various political threats and the likelihood of social disorder, and the event created some disharmony for local people. The responses of interviewees were also grounded in politics at that time. Despite the disruptions, the experience gained by the researcher in the period of the two major events was valuable. The insights thus gained proved useful in the analysis of the complicated problems that were discussed in the Sibalew and Linayasan case studies.
The discussion of methodological issues provided the researcher a basis for obtaining and understanding concepts, procedures and theories. These were particularly helpful in guiding the fieldwork activities and when writing the case studies. In particular, the studies of other authors reviewed provided a solid foundation for the discussion of significant issues and complex problems that occurred when introducing new technology on the demonstration farms. It also provided the researcher with information to effectively articulate issues and problems that emerged in the fieldwork of the case studies. The same was true of the analysis of the sociocultural transformation that resulted, described in part two of the thesis. The *Sociological Imagination* by C. Wright Mills was given attention. In this thesis, the application of the Sociological Imagination allowed the researcher to integrate his previous experiences and involvement with the College development projects. It also helped the researcher to generate broader, in-depth discussions on the various topics attended to in the case studies.

The writing of the thesis was also interrupted by some family problems. The researcher was granted compassionate leave to return to the Philippines. The circumstances depressed the researcher and added to the difficulties of working on the thesis. Despite the difficulties, the circumstances also provided an opportunity for the researcher to present the preliminary results of the case studies and solicit comments and suggestions from the staff and faculty of the College and some locals. Through this opportunity, those who discussed the issues generally validated the results of case studies. The feedback and suggestions from those people expanded the original ideas and understanding of the researcher. For example, there were issues relating to bureaucratic procedures, the cultural behaviour of officials as well as the local people, and the politics inherent in the participatory methods of technology transfer in rural barangays. Those were the main issues encountered by the researcher when the PRA was conducted in Sibalew, Feliciano and Linayasan. The presentation of the results of the PRA to the staff and faculty of the College also provided the researcher with a new perspective on the significance of traditional cultural and political practices that needed to be critically addressed in the completion of this thesis.

Finally, the problems in the application of PRA, described by various authors, were also discussed. Many authors emphasised the critical role of the researcher when using this method with locals. Some authors argued that when using the participatory approach,
ethical issues, as well as the sociopolitical problems needed to be addressed. The power relations that exist within the structure and policy of development institutions, as well as between groups of local people, local leaders, tenants and landlords in rural communities, needed to be taken into account in various PRA activities. Power relations had been associated with cultural behaviour and politics. Power relations also affect the network linking rural people and development agency personnel. Because of this it was considered necessary by many authors to understand how the locals responded when engaged in various activities. The researcher encountered all of the issues mentioned above in the course of his fieldwork in the case study barangays. However, before examining these issues in the case studies to follow, it is also important to focus attention on the two methods of technology-transfer.
Chapter Three

Literature Review on Technology - Transfer in Rural Communities

3.1 Introduction

This chapter presents two models that guided the policy of extension programmes used in agricultural colleges and other government-run training institutions in the Philippines. These models are reviewed in order to examine and identify the social issues surrounding the effective transfer of technology. The models are discussed in two separate sections. First, the traditional diffusion model is presented, followed by a discussion about the issues related to this model. Secondly, a discussion follows about the ‘putting people first’ approach. These two models have different attributes and make different assumptions strategies about technology-transfer. They have different strengths and weaknesses, and are opposites in dealing with issues and the complex problems of local people. They have different perspectives concerning social, economic, cultural, political and technological factors in development. These two models help to examine how technologies introduced through demonstration farms changed the social structure and rural living conditions in Sibalew, Feliciano and Linayasan. Examining the shortcomings of these two models helps in the evaluation of issues and complex problems associated with the extension methods that have been used by Aklan State College of Agriculture to promote demonstration farms in these three barangays. It also provides basic information to identify key elements crucial to the improvement of their extension programmes.

3.2 The Traditional Diffusion Model

This section discusses the traditional diffusion model examined in the literature. The diffusion of innovation is one of the fundamental concepts taught in extension programmes in Universities and Colleges in the Philippines. This model is a very powerful tool for planners, policy makers, extension workers and other authorities engaged in designing extension programmes. The Aklan State College of Agriculture is one of the agricultural institutions which has been using the diffusion model in their extension programmes.
However, there are many problems regarding this model examined in the literature. The extension staff and faculty have limited access to or no access at all to this literature. It is especially difficult for staff to understand what a 'model' means in development and how it affects their social structure. As a result, the impact of new technology on the social structure of Sibalew, Feliciano and Linayasan is not critically evaluated. There are many issues and complex problems faced by locals in these barangays which were ignored in previous studies and project reports (Aguilar, 1995; 1989a and 1989b; Agustin 1990 and 1982; Quintana, 1989; Montemayor, 1986).

The literature shows that the major weakness of diffusion studies conducted in the past decade was that they neglected complex social problems and institutional issues to do with receiving new things and new ways of doing things in development processes (Molnar and Jolly, 1988). In this thesis, in order to understand the complexities faced by locals in three barangays and the social, cultural, political and institutional factors, as well as intergenerational problems associated with the extension programmes, it is crucial to examine the diffusion model. This examination provides advanced understanding in evaluating extension methods that have been used by the College to promote the demonstration farms and identifies key elements for improving their extension programmes.

The literature shows that the diffusion model developed in the 1920s “when administrators in the U. S. Department of Agriculture launched a series of evaluation studies of diffusion campaigns that had been conducted by state extension services” (Rogers and Shoemaker, 1971: 53). Then, the theory of diffusion of innovation was promoted through development assistance from Western countries, particularly the United States when agricultural extension was introduced to developing countries after the Second World War (Blackburn and Flaherty, 1994: 5). According to Blackburn and Flaherty, in the two decades following Word Ward II, the “USAID model of Extension” was introduced into most Latin American countries, and later part of South East Asia (Blackburn and Flaherty, 1994: 5). This model was based on the American Land-Grant College system which required Universities and Colleges to link their research programmes with Agricultural Extension Organisations. However, Blackburn and Flaherty (1994: 5) note that few developing countries had well established Universities and Colleges that had the potential to fully adopt the model.
Further, Blackburn and Flaherty (1994: 5) claim that even after independence, the extension services in developing countries retained many characteristics inherited during the colonial period. The extension services remained biased toward export crops grown for commercial production. There was a lack of appropriate technology to improve production of food crops grown locally, which were needed to supply a growing population. Blackburn and Flaherty cited the report by Arnon (1989) who reveals "a major problem facing the extension services in most Third World countries is the lack of appropriate results, compounded by the deficient linkages between research and extension" (Blackburn and Flaherty, 1994: 5). Arnon argues that "the extension field workers often found themselves spending most of their time dealing with administrative and regulatory tasks required by the increasing bureaucratization of government services" (Blackburn and Flaherty, 1994:5).

However, despite the failure of the USAID model of extension in Third World countries the theories of diffusion of innovation were influential in education and extension programmes and have been taught in the Universities and Colleges in the Philippines. Historically, one of the major reasons for this shown in the literature is because the Philippine education system has been influenced mostly by the Spanish and American systems (Hunt et al., 1997; Panopio et al., 1994; Garcia, 1994; Bautista, 1988). Panopio et al. (1994: 287) describe that "the coming of the Western powers brought about educational practices that reflected the ideologies of these colonizers and the ideas inculcated represented their cultures," especially the Americanisation of Filipino culture. Panopio et al. (1994: 288) argue that many problems in Philippine education are traced to the educational systems inherited from colonizers, which did not produce the expected results.

The Philippine education system is a bureaucratic structure under the supervision of the State (Panopio et al., 1994). Despite the Philippines gaining independence in 1946 American ideas remained powerful and influenced the economic policies of the Philippine Government (Bautista, 1988: 147). An example of this in the literature is that the Philippines continued to exhibit a "colonial pattern of trade" by mutual agreement with the United States through "import-substitution industrializations in the 1950s (see Hutchison, 1999: 67-76). Packages of assistance including textbooks and instructional materials are provided to the Universities and Colleges for development of their research
and extension programmes, mostly from United States (see Hunt et al., 1997; Panopio et al., 1994; Garcia, 1994). The methods taught in agricultural production focus on adoption of new technologies and are purely based on the economic aspect. The extension methods are basically patterned on programmes based on western theories. The diffusion model is one of the tools that has been used in research and extension programmes. Axinn (1988: 10) contends:

The most compelling evidence comes from the allegiance to technology transfer in agriculture. The assumption continues among most academics and administrators that the large-scale, mono-crop, capital intensive, labor saving, commercial market agriculture technology which the U.S. agriculturists have generated can be successfully introduced into the small-scale, mixed crop and livestock, labor-surplus but capital short, family-survival, non-commercial-market oriented agriculture of other countries. And it is further assumed that if this technology is adopted, the people who adopt it will be better off (Axinn, 1988: 10).

The literature shows that one of the strengths of the diffusion model is the short time required to develop blueprint programmes (Lambie and Seaman, 1994; Rogers, 1983; Rogers and Shoemaker, 1971). This is especially so for planners and higher authorities who need a shorter period of time to make decisions in formulating development plans and policies. Another potential of the diffusion model is the ‘top-down’ processes which fit the role of bureaucracies which are concerned primarily with the economic aspect of development, while ignoring its political and cultural aspects (Hague, 1998: 293).

In general, Lambie and Seaman (1994: 49) describe “the more people involved in making an innovative decision, the slower the rate of adoption and the greater the stability of the decision.” Therefore, according to Lambie and Seaman “one strategy for speeding the rate of adoption is to attempt, if possible, to alter the unit of decision so that fewer individuals are involved” (Lambie and Seaman, 1994: 49). Lambie and Seaman (1994: 49) give an example: “to get the desired change through an executive authority decision of the marketing board rather than collectively by a public referendum”. On the other hand, “if stability of and compliance of the decision are of prime concern,” Lambie and Seaman suggest to “try to get as many people as possible involved in the innovative decision-making process” (Lambie and Seaman, 1994: 49).

Another important aspect of the diffusion model directly deals with the role of progressive farmers in increasing the rate of adoption of introduced technologies in the
Third World. Röling et al. (1981: 229) outlines eight major reasons why most rural development agencies in developing nations follow the progressive farmer strategy to promote development.

1. Progressive farmers have large-sized farms, so the extension worker's direct effect on total agricultural production is greater if he works with more progressive farmers.

2. Progressive farmers are those who can be expected to form the future core of commercial farmers and who will provide the nation with food and export earnings.

3. Progressive farmers have a high sense of efficacy... thus, they are eager for information. They follow technical advice. One does not waste much time in convincing them about innovations. One gets quick results which can be reflected in monthly and annual reports to supervisors.

4. Progressive farmers demand assistance. Often the change agent cannot by-pass them. They complain if they are neglected. Some are powerful enough to threaten the career of the local rural development agent.

5. Progressive farmers have the economic means to try out new ideas. Other farmers may need credit to adopt agricultural innovations, a resource notoriously difficult to obtain by smallholders in developing nations. For the same reasons, agricultural demonstration plots are usually laid out on the farms of the more progressive.

6. Progressive farmers are usually homophilous with the agricultural extension workers. It is relatively easy for them to communicate. In some cases the innovative farmers may be more knowledgeable and technically sophisticated than the local development workers, and may go directly to high officials or even to agricultural scientists. Such by-passing situations are an embarrassment to the agricultural extension service.

7. Progressive farmers provide an intellectual challenge to the local extension service official, as they keep him on his toes with their questions and problems.

8. Extension workers learn from progressive farmers what to tell others. In fact, much agricultural development in such countries as Holland can be explained by this mechanism of locally originated innovation rather than by the utilization of agricultural research station findings (Röling et al., 1981: 229).

The diffusion model considered the role of progressive farmers in technology-transfer was critical when introducing social change. According to Rogers and Shoemaker (1971: 36) "social change is the process by which alteration occurs in the social structure and functions of a social system." Rogers and Shoemaker suggest that there are three sequential stages in the process of social change. These stages include:

(1) "invention, the process by which new ideas are created or developed, (2) diffusion, the process by which these new ideas are communicated to the members of a given social system, and (3) consequences, the changes that occur within the social system as a result of the adoption or rejection of the innovation" (Rogers and Shoemaker, 1971: 36).
The theories intrinsic to the traditional diffusion model make many assumptions. First, the theory maintains the general assumption that farmers are the adopters of innovation developed at experimental stations. It conceptualises the idea that farmers need the technology and information developed by the scientists at research stations, and therefore the knowledge and techniques need to be transferred to them. This aim has been executed through development institutions following an organisational hierarchy based on the national objectives of the government. The national agendas, policies and procedures developed by central government are introduced at national, regional, provincial, municipal and finally, barangay level. Then, when information about the new technologies reaches farmers, the theory maintains that decisions made by the farmers in adopting innovations will be based on their own “resourcefulness” (Rogers, 1983).

The methodology also assumes that there are five steps that individual farmers follow in making decisions. These are (1) knowledge (2) persuasion (3) decision (4) implementation and (5) confirmation (Rogers, 1983: 163). From these stages, the farmers are classified into five categories according to their degree of resourcefulness as described by Rogers (1983: 247-251). First, there are ‘innovators’ who are first to adopt the innovation. They are progressive farmers willing to take risks by using innovations. Second, there are ‘early adopters,’ farmers who are respected by other farmers. Extension workers disseminating information around the community use them as ‘opinion leaders.’ Third, there are ‘early majority’ adopters who are the farmers waiting to gain sufficient experience from other farmers before adopting the innovations. Fourth, there are the ‘late majority’ adopters, farmers who are sceptical about adopting innovations for several reasons. Finally there are the ‘laggards’, farmers who do not have the potential to adopt the innovations because of limited resources. Farmers belonging to each of these categories differ in their characteristics. Their perceptions of innovations are different and this affects the rate of adoption over time. The rate of adoption by each group of farmers is assumed to follow the normal (bell shaped) distribution curve (Rogers, 1983: 243).

Rogers and Shoemaker (1971: 39) describe four elements in the diffusion of new ideas. These are “(1) innovation [meaning new ideas, practices or objects perceived as new by an individual], (2) which is communicated through certain channels, (3) over time, (4) among the members of a social system.” Rogers and Shoemaker claim that the
characteristics of an innovation, as perceived by the members of a social system, determine the rate of adoption.

Rogers and Shoemaker (1971: 135-157) identify five attributes of innovation that are parallel to the selection criteria in the extension programmes of the College in establishment of demonstration farms in Sibalew, Feliciano and Linayasan. The five attributes of innovation are as follows:

1. **Relative advantage** is the degree to which an innovation is perceived as being better than the idea it supersedes. The degree of relative advantage is often expressed in economic profitability, but the relative advantage dimension may be measured in other ways.

2. **Compatibility** is the degree to which an innovation is perceived as consistent with the existing values, past experiences, and needs of the receivers. An idea that is not compatible with the salient characteristics of a social system will not be adopted so rapidly as an idea that is compatible. Compatibility ensures greater security and less risk to the receiver and makes the new idea more meaningful.

3. **Complexity** is the degree to which an innovation is perceived as relatively difficult to understand and use. Any new idea may be classified on the complexity-simplicity continuum. Some innovations are clear in their meaning to potential adopters, other not. Complexity is a predictor of rate of adoption.

4. **Triability** is the degree to which an innovation might be experimented with on a limited basis. New ideas that can be tried on the instalment plan will generally be adopted more rapidly than innovations that are not divisible. An innovation that is triable is less risky for the adopter. Some innovations are more difficult than others to divide for trial.

5. **Observability** is the degree to which results of an innovation are visible to the others (Rogers and Shoemaker, 1971: 135-157).

These five attributes and other factors influenced the extension policies of the College. An example of this is the innovation-decision process in the diffusion of innovation taught in extension curricula of the agricultural colleges in the Philippines. Rogers and Shoemaker (1971: 39) claim that the "innovation-decision process is the mental process through which an individual passes from first knowledge of an innovation to a decision to adopt or reject, to later confirmation of this decision. These factors are (1) the perceived attributes of an innovation (2) the personality attributes of individuals (3) communication channels (4) the nature of social systems (5) the opinion leaders, and (6) the extent of change agents' efforts in promoting the use of the innovation (Rogers, 1983: 34-37).
In actual situations, there are gaps between theory and practice as the form contradicts local social, cultural and political practices. The model fails to address the felt needs of locals in rural areas (Jiggins, 1993; Gabriel, 1991; Cernea, 1991; Chambers, 1983). For example, this thesis will show there are critical issues and complex problems such as power relations between locals, extension staff and faculty and the social relations of College and linkage agencies who initiate and implement the demonstration farms. Social and cultural practices of locals including political uncertainties also influenced results of development programmes. Differences in economic conditions and the geographical environment between barangays are often neglected. There were drawbacks from previous development programmes compounded by intergenerational problems. This thesis has attempted to address all these issues.

3.3 Issues Related to the Traditional Diffusion Model

This section examines shortcomings of the traditional diffusion model in the literature in more detail. This provides basic information for evaluation of issues and problems associated with extension and the impact of demonstration farms on the social structure and rural lifestyles, which will be discussed in the Sibalew and Linayasan case studies.

It was mentioned in the previous section that the application of the traditional diffusion model to promote new technologies has been criticised as no longer suitable for the living conditions of people in rural areas. Many authors have argued that the 'top-down' processes which the traditional diffusion model adhered to are no longer responsive to the present needs of rural people. The literature suggests that it should be replaced with a model that is more responsive, allowing local people to participate in the development process (Jiggins, 1993; Gabriel, 1991; Cernea, 1991; Chambers, 1983).

The literature insists that one of the major shortcomings of the diffusion model is that it is unable to alleviate rural poverty. In fact it has increased social inequality in rural communities (Jiggins, 1993; Cernea, 1991; Goodman and Redclift, 1991; Chambers, 1983). The diffusion model was also criticised as a pro-innovation model biased against less progressive farmers (Rogers, 1983: 92-103). Farmers who belong to progressive groups are the primary adopters of innovation, while it is assumed that other groups of farmers will adopt it later, once the innovation has been tested for a while. But this does
not happen automatically because late adopters do so reluctantly and benefit less. Molnar and Jolly (1988: 20) suggest this is "because some procedures are presented with innovations earlier than others, and some adopt earlier than others, purposive change strategies often widen the distribution of inequality in the community."

Vanclay (1992, cited in Guerin and Guerin, 1994: 551) stated that farmers have not necessarily followed the suggested steps from awareness through to knowledge, trial and then adoption, of innovation. Vanclay argued that this was because it was not easy for farmers to experience new technology. The main reason for this is that the majority of local farmers, especially the less affluent want to keep away from risks. Having a long-term project to experiment with new technologies without regular sources of income is detrimental to their families. Local farmers are also engaged in various forms of livelihood activities for the economic survival of their families (see Long, 1977). In most cases the literature shows that the impact of introduced technologies contradicted existing traditional farming methods of the locals (see Gabriel, 1991; Long, 1977).

Long (1977: 148) describes from an economic point "working with peasant farmers is a relatively cheap way of stimulating economic growth since the level of inputs required is comparatively low." However, Long argues that such policy has two fundamental shortcomings.

In the first place, it leads to the reinforcement or development of socio-economic inequality in the countryside, sometimes resulting in a widening of gap between the commercial farmer and the poor peasant or landless categories. And second, it is a slow-moving process which cannot be expected to produce quick returns (Long, 1977: 148).

Another reason is that most local farmers have limited education and they did not have access to research publications and information, which made their adoption of introduced technologies complicated (see Eponou, 1993). Similar to arguments of Vanclay (1992) described above, Guerin and Guerin (1994) cited the farm management plan as an example of something that was difficult for farmers to follow, even though the steps were provided for them. Farmers often selected only those steps that were suited to their needs and easier for them to adopt. They did not always give attention to the whole plan developed by planners (Guerin and Guerin, 1994). The local farmers had freedom to choose technology based on their felt needs. However, the freedom of local farmers to
determine appropriate farming methods was undermined because they believed that the new technologies could provide an economic advantage as emphasised in the diffusion model. This issue is essential in this thesis because most locals in Sibalew, Feliciano and Linayasan did not have access to information, especially in published research works and development reports.

Other literature showed that gender issues were important in the transfer of technology, but gender issues have not been addressed in the traditional diffusion model. There are studies and reports which have indicated that both men and women play separate roles, particularly in decision making in agricultural production, as well as in adopting new technology (Jiggins, 1993; Tisch, 1992; Adriano and Castillo, 1991; Banzon-Bautista and Dungo, 1987; Illo, 1985). Similar gender issues related to sustainable agricultural development were described by Tisch (1992: 75-92) in her reports.

The mechanisation of rice farming in rural communities was another example which showed how diffusion of innovation impacted on the rural social structure of the Philippines (Chua, 1990). Mechanised technology improved rice production in rural areas, but it also had some adverse effects, particularly on the groups of poor farmers. Chua (1990) describes how mechanised farming operations changed the social networks between farming families in rural areas. He explains that most of the technologies required adapting mechanised farming which gave cost-intensive advantages to rich farming families. The social structure changed and the rural economy improved, but the traditional farming practices which poor farmers used to practice were displaced. Especially, native rice which the local farmer used to grow was replaced by new high yield varieties which demanded heavy applications of fertiliser and spray chemicals (see Panopio et al, 1994: 319; Miclat-Teves and Lewis, 1995: 228-229). The impact of the adoption of farm mechanisation demanded new infrastructure facilities such as irrigation systems, access roads and other facilities that were not anticipated by local farmers at the introduction of the new technology.

Furthermore, those farmers who had access to such facilities benefited most, which meant that the progressive farmers were the major beneficiaries of new technologies introduced in the mechanisation of farming methods. The large amount of capital required for purchasing machines and payment of the increasing costs of technologies
such as buying seeds of high yielding varieties of rice, fertilisers and spray chemicals widened the economic gap between the rich and poor families in rural areas (Chua, 1990 and see also Gerdes and Pehrson, 1998; Otsuka, 1996; Balisacan, 1993; Illo, 1985).  

In the Philippines for example, Watson and Laquihon (1993: 240) reported that the land-use system known as SALT technology was simple, applicable, low-tech, and suitable for the needs of rural farmers (see also Duma, 1996; Laquihon 1989; Watson and Laquihon, 1989 and 1985). But farmers who belonged to progressive groups were the usual beneficiaries of this technology. Because they were progressive and had the necessary capital to adopt the new technology, they could provide assurances to the development agencies about their continuous use of the new technology, as well as reducing risks on the part of the agency. Therefore, progressive farmers had power that they could make use of, in appropriating the benefits other farmers may have received from development agencies. Although the SALT technology helps to reduce soil erosion problems on hillsides, there are studies that also indicate the deficiencies of this technology (Claydon, 1998; Fujisaka, 1993a and 1993b; Fujisaka and Cenas 1993).  

Despite its flaws, the ‘top-down’ process of the diffusion model is convenient for development agencies because of their bureaucratic procedures and existing practices, as well as efficient as regards time and effort (Röling et al., 1981: 229). The diffusion model is an attractive tool for development agencies because the process of trickle down of technologies can be fitted simply to the role of a bureaucracy focused on the economic aspects, while ignoring the social and political dimensions of development (Haque, 1998: 293). The model also provides basic theories for planners and policy makers to design development programmes, and helps them to distinguish the attributes of technologies, as well as identifying the target progressive farmers expect could increase the rate of adoptions of such technologies and social change (Röling et al. (1981: 229).

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9 Reports from different Non-Government Organisations in the Philippines indicate that the policy and bureaucracy that the government requires as an integral part of the implementation of all projects, causes delays by the Non-Government Organisations in implementing their projects in rural communities (see Farrington et al., 1993). It further indicates that this affects the Non-Government Organisation's credibility in the rural communities (Cerna and Miclact-Teves, 1993; Ganapin, 1993; Tomboc and Reyes, 1993). This is not only because of the complex problems encountered by the development agency, but also the problems faced by the local people in adopting the technology. Fujisaka (1993a and 1993b) declared that there are many overlapping problems faced by farmers.
3.4 The ‘Putting People First’ Approach and Associated Issues

This section discusses the ‘putting people first’ approach in development processes examined in the literature. The discussion is focused on why it is difficult to adopt a grassroots participatory approach in research and extension programmes. This approach is one of the methods that has been used by the College to establish demonstration farms in Sibalew, Feliciano and Linayasan. Understanding the concepts, practices and associated issues of this method helps us to examine the complex problems that hindered participation of locals in demonstrations farms established in these three barangays.

In the 1980s, because the ‘top-down’ approach failed to deliver appropriate assistance in undeveloped countries, another approach was initiated to deal with the complex problems of disadvantaged locals in rural areas. ‘Putting people first’ is another approach used for technology transfer in rural communities (Scoones and Thompson, 1994; Cernea, 1991; Chambers et al., 1989; Chambers, 1988 and 1983). It is opposite to the hierarchical approach of the traditional diffusion model. It starts from the ‘grassroots’ level and promotes the farmer’s agenda as a priority that needs to be addressed before introducing research and development projects. One of the basic principles of this approach is spreading farmer participation throughout all stages of development of projects (Chambers, 1989). It is important to strengthen the links in communication between researchers, extension workers and rural farmers in the development of projects (Lightfoot et al., 1989).

However, what ‘putting people first’ means to development agencies and local people in rural areas is not clear and needs more clarification. Cernea (1991: xiv) describes:

Putting people first is more than an ideological appeal. It means making social organization the explicit concern of development policies and programmes and constructing development projects around the mode of production, cultural patterns, needs, and potential of the populations in the project areas (Cernea, 1991: xiv).

According to Uphoff (1991):

Putting people first in development comes down to tailoring the design and implementation of projects to the needs and capabilities of people who are supposed to benefit from them. No longer should people be identified as “target groups.” Rather, if we must speak of them abstractly, we should consider them as “intended beneficiaries.” They are to be benefited, rather than “impacted.” In design and
implementation we have only intentions, since our knowledge of how to improve the productivity and well-being of the poor majority is limited. We can and should be clear about whom we expect to benefit, and how, but we cannot be certain our efforts will bear the desired fruits until the processes of economic and social change have been put in motion (Uphoff, 1991: 467).

Kottak (1991) mentions that people should come first at all stages of development projects. Kottak stresses that “putting people first in development intervention means eliciting the need for change that they perceive; identifying culturally compatible goals and strategies for change; and developing socially appropriate, workable, and efficient designs for intervention” (Kottak, 1991: 432). Kottak further emphasizes that ‘putting people first’ should be:

...using, rather than opposing, existing groups and organisations; drawing on participants’ information, monitoring and evaluation of projects during implementation; and gathering detailed information before and after implementation so that socio-economic impact can be accurately assessed (Kottak, 1991: 432).

Merrell-Sands and Collion (1994: 26) cited Röling (1990) who “argued that performance of research systems could be improved more by investing in farmers’ associations and increasing their power to express demands, than by investing in research or extension organisations themselves.” In such arguments there are various tools useful in participatory approaches which research and extension programmes could improve to promote ‘putting people first’ in development projects (FAO, 1995a and 1995b, Chambers, 1994 and 1994b; Eponou, 1993). Some of these are already described at the methods section of this thesis.

The literature shows that participation is one of the principles that can enhance the success of development projects in rural communities, but such terms have been applied by various development agencies as a token gesture or only as political propaganda for social change (see Bentley, 1994; Cernea, 1991; Chambers et al., 1989). Participation involves individuals or groups of local people defining their problems and identifying their own solutions. According to Pretty (1995), participation has become a normal way of doing things with different interpretations. He talks of “some hindering rather than supporting agricultural sustainability” (Pretty, 1995: 1247). He further states that there are two overlapping schools of thought and practice that are involved in participation. The first is that participation is viewed as a “means to increase efficiency, the central
notion being that if people are involved, then they are more likely to agree with and support the new development or service.” The second is that “participation as [is] a fundamental right, in which the main aim is to initiate mobilisation for collective action, empowerment and institution building” (Pretty, 1995: 1251). These two principles conflict, especially if wider groups of local people are involved. This conflict creates problems for the development agency, which loses its control over the project. Loss of control can also delay implementation.10

The literature indicates that local leaders are key people when implementing all rural development projects (Ife, 1999; Antlov and Cederroth, 1995; El-Ghannam, 1995; Rossing and Howard, 1994). El-Ghannam (1995) argues that the success of a project in the community will depend on the leader directly. The members of groups of local people may select leaders who are involved in the project, but this is subject to the preferences of the development agencies that implement projects in the community. This is where the participation of local leaders becomes a central issue affecting the principle of ‘putting people first’ in development processes (Uphoff, 1994).

In most situations in the Philippines, the leaders involved in rural development projects are chosen by the agency implementing the project. This sometimes results in a misunderstanding amongst the local people if the selection process is not conducted correctly. Elsewhere, Rossing and Howard (1994) state that effective leadership in the community is related to the access to power that is essential to the success of development projects. They argue that those leaders whose power links them to other political leaders who are against the work of development agencies, resist innovation in the community, and thus hinder the success of the projects (Rossing and Howard, 1994: 83-84). According to Thrupp et al. (1994: 174):

Shifting the leadership to local people also can be fruitful in these participatory efforts, and helps to prevent local people dependency on external support. In some

10 Pretty (1995) classifies participation into seven types, depending on how people participate in development programmes and projects: (1) manipulative, (2) passive, (3) consultation, (4) material incentives, (5) functional, (6) interactive, and (7) self-mobilisation (Pretty, 1995; 1252). These different types of participation help to clarify the different degrees to which the local people are empowered at different stages of development in the projects. But this needs to be examined in relation to particular projects.
cases, however, it is difficult to shift leadership in this way at the beginning, partly because local people may have little experience leading such initiatives. In these situations, locals may develop increasing leadership over time, after they gain familiarity and capacities in participatory processes. At the same time, the outsiders' roles in the field diminish, and the relation between the two groups often matures into partnership (Thrupp et al., 1994: 174).

Eponou (1993: 6-7) describes the importance of leadership in linking research and technology-transfer to serve local farmers. According to Eponou “lacking good leadership, accountability and shared goals are often unknown.” Eponou describes the relationship between leadership and policy making:

Lack of shared goals sometimes stems from the failure of research leaders to recognize and properly apply a systems perspective. It is important that policymakers always perceive research and technology transfer as components of one system regardless of the particular organization and structure in place and their administrative locations (Eponou, 1993: 7).

Other scholars argue that the power of local leaders who link with elite politicians through political kinship and patronage relations undermines local people from moving away from complete dependence on government to complete reliance on themselves (Simpas, 1979: 122). Uphoff (1994: 215) argues that while ‘leadership’ is essential for the process of achieving successful projects, on the other hand ‘leaders’ are often adverse influences,” ignoring complex issues exists in their communities.

The literature shows that the acceptance of participatory approaches could contribute to the development of technologies by and for resource-poor farmers (Pretty and Chambers, 1994). But Pretty and Chambers (1994: 190) argue that “government organisations are limited in their ability to conduct system-based participatory agricultural research and development.” Pretty and Chambers describe elements which influence the effective performance of participatory roles by government and state institutions:

At the macroeconomic level, tight limits are set by debt burden, structural adjustment, low revenue and budget deficits. At the institutional level, inflexible management generates misleading favourable feedback based on centrally determined criteria. Government field agencies, with the deadlines of financial years, often concentrate on physical construction to meet targets to the neglect of community and farmer participation. In consequence, attempts to scale up successes frequently founder. At the individual level, agricultural researchers are deterred from working with farmers by reward systems based on scientific papers derived from on-station research, and by sheer lack of physical and financial resources, such as transport and travel allowance (Pretty and Chambers, 1994: 190).
An examination of the literature shows that there were many complex problems when participatory approaches were applied in actual situations (see Rowlands, 1997; Kaufman and Dilla Alfonso, 1997; Uphoff, 1991; Cernea, 1991; Oakley and Marsden, 1984). The consequence of not solving complex problems in participation in turn influenced decision-making processes which trapped many development agencies which went back to ‘top-down’ procedures, instead of a grassroots participatory approach which had been newly adopted (Michener, 1998; Thompson, 1995; Uphoff, 1991; Molnar and Jolly, 1988).

Uphoff (1991: 466) reviews three rural development projects in Ghana, Mexico and Nepal. The review indicated that despite innovative designs “all three projects were hindered by an excessive dependence on centralized, nonparticipatory planning.” Even though the planners started to allow for consultation, Uphoff’s analysis in the Mexican case showed “that lasting patterns of social organisation for participation were not established” (Uphoff, 1991: 466). According to Uphoff one of the major reasons why a participatory approach may not be accepted or followed seriously is that governments commonly favour the upper and middle classes. They are better endowed with political resources and their political loyalty is worth more, while the poor are assumed to be passive and grateful receivers of the benefits from government programmes, becoming thereby also loyal followers (Uphoff, 1991: 502).

Gaventa (1998: 161) suggests participation in large-scale development programmes cannot occur without the involvement of national governments and donor agencies. He argues that while national government and donor agencies attempt to promote participation there are dangers of abuse and bad practice in which dependency has been a critical issue between the donor and government recipients of foreign aid assistance. Gaventa (1998) notes that the donor and the recipient government relationships often created dependency and participation of local people when development programmes were undermined by:

(1) Failure to understand the philosophy of the participation and PRA
(2) Pressures to scale up PRA rapidly, sometimes on a national level
(3) Demand for instant PRA training one-off and on a large scale
(4) Low-quality PRA training, limited to routine methods
(5) The rush to prepare projects and programmes
(6) Top-down procedures
(7) Time-bound targets for products
(8) Inflexible programmes and projects
(9) Neglect and underestimation of the knowledge and capabilities of local people; neglect of local capacity-building and institutional
development (10) lack of staff continuity (11) penalization of participatory staff; and (12) above all failure to recognise the ABC of PRA namely the primacy of personal behaviour (Gaventa, 1998: 161-162).

Blackburn (1998: 168) concludes that the “institutionalization of participation does not depend only on exogenous policy factors.” It also involved “changing the organizational characteristics” of development agencies regardless of their scale and specific tasks (Blackburn, 1998: 168). According to Blackburn:

Leaning how to use participatory methods is only a small part of a highly complex equation. The true test of engagement with participation has more to do with one’s personal commitment than with one’s desire to learn a set of new tools. It is about vision, not only about methodology. .... Participation is more a set of principles than an ideology, an ethic more than a model. If it is to have a lasting impact, not only in development, but more broadly in politics and society, participation must uphold a vision that is personal as well as societal (Blackburn, 1998: 170).

Blackburn argues there is “no magic formula which can be universally applied. ‘Perfect’ participation does not exist” (Blackburn, 1998: 171). The tools and techniques of participatory approaches change continuously. According to Thompson (1995: 1523) “transforming a bureaucracy demands changes to an organization’s working rules in order to allow its staff to experiment, make and learn from mistakes, and respond more creatively to changing conditions and new opportunities.”

According to Thompson (1995: 1522) international aid has been instrumental in stimulating the interest of Third World governments in participatory approaches. The donor Western countries often determined conditions and imposed policies on grants and loans for the governments of Third World countries. This usually required them to support participatory research and development programmes and projects. Their assumption was that provision of grants and governmental policies would create decision-making in which local organisations and associations have open public processes. But in reality, Thompson argues that much attention has been focused on accountability “upward towards the donor,” rather than “downward towards local people,” thus placing more pressure on public agencies in the Third World (Thompson, 1995: 1522).

Another important issue which influences the participatory styles of development agencies is the social, economic and cultural differences between professionals and local
people (Michener, 1998: 2112; Pretty and Chambers, 1994: 185-187). As mentioned earlier the participatory approach is a part of broader process of organisational learning. Pretty and Chambers (1994: 185-186) explain, “scientists must continue their normal science, in laboratories and on research stations,” but in addition, Pretty and Chambers suggest that scientists “will have to learn from and with farmers, and so serve diverse and complex conditions and farming systems” (Pretty and Chambers, 1994: 185-186).

Bentley (1994) outlines the basic problems of scientists trying to collaborate with farmers doing research, including “poor access, different observations and experimental styles, time constrains, environmental mosaics, and social distance” (Bentley, 1994: 143). Because of such differences the theory of the diffusion of innovation was more attractive to the bureaucracies in development institutions.

Research institutions often tried to integrate “participatory, process-driven approach without fundamentally changing their cumbersome bureaucratic systems and risk-management styles” (Thompson, 1994: 1522). As a result, according to Thompson, changing to a new approach created problems that led to conflicting policies, procedures and norms. The management structure, professional norms and the adherent social practices within institutions influenced a set of “working rules” that individual employees used to establish their relationships (Thompson, 1995: 1523). Further, Thompson explains:

> These rules determine who is eligible to make decisions in certain areas, what actions are allowed or prohibited, what procedures must be followed, what information must or must not be provided, and what penalties or rewards will be assigned to individuals or groups as a result of the actions (Thompson, 1995: 1523).

To sum up, an examination of the literature on participatory studies indicates there are various factors that hindered the institutionalisation of the participatory approach (Blackburn and Holland, 1998; Michener, 1998; Holland and Blackburn, 1998; Biggs and Smith, 1998; Chambers, 1997, White, 1996; Chambers, 1995, 1994a, 1994b and 1994c; Pretty, 1995; Scoones and Thompson, 1994, Eponou, 1993, Cernea, 1991, Whyte, 1991; Midgley, 1986). The crucial issues examined in the literature which prevented adoption of a participatory approach could be classified into internal and external factors (see Blackburn and Holland, 1998, Thompson, 1995). Internal factors included power
relations, limited funds, untrained personnel, inadequate facilities, biased promotion criteria and the changes of programmes and priorities (see Thompson, 1995: 1542).

On the other hand, external factors included restrictions of national policies, changes of administration, political instability, promotion not fully established on merit, and the limited opportunities and incentives for public services (see EAAU, 1998: 31). In the Philippines, in a report from the East Asia Analytical Unit, Department of Foreign Affairs and Trade (1998: 31) the issues mentioned above are linked to inconsistent bureaucratic procedures, which cause failure of economic policies and a weak response of government agencies to public needs. This was also compounded by the current economic difficulties, inadequate infrastructure, poor linkage mechanisms between research and extension services, and the linkage agencies (EAAU, 1998: 287-292). The EAAU report suggests that, “streamlining the bureaucracy would encourage investment confidence and profitability.”

The underlying significance of arguments mentioned above by various authors emphasised that the development institutions could not move away from internal and external pressure and limitations on the process that derives from power relations and the complex problems of the institutional alliances. Drawing on ideas and practices of the diffusion model and ‘putting people first’ in development programmes, the interaction of these two models in the extension programmes of the College will be examined through case studies of the extension efforts of Aklan State College of Agriculture in Sibalew, Feliciano and Linayasan.

3.5 Conclusion

The main purpose of this chapter has been to review the diffusion model and the ‘putting people first’ approach in order to develop advanced knowledge which helps to examine various issues and complex problems of how the theories, practices and procedures of these two models work in the extension programmes of the College at Sibalew, Feliciano and Linayasan. The two models have different strengths and weaknesses, use different procedures in technology-transfer and left unsolved complex problems for the locals. The first model has a heavy emphasis on the trickle down of modern technologies and
economic aspects of development. And the second one is more concerned about the social, cultural and political aspects of project cycles.

The diffusion and the 'putting people first' models use different procedures in initiating research and extension services. It is crucial to examine their strengths and shortcomings in relation to the actors involved and the relationship of communities with development institutions and linkage agencies. Both models have inherent potential in technology-transfer. Both models make many promises and have ambitious expectations of providing various benefits for development agencies and local people, especially the disadvantaged families.

The 'top-down' process of the diffusion model adhered to practice that has been criticised, but the theories of this model remain influential on research and extension programmes in the Philippines. This model helps development agencies to keep control over the administrative tasks and accountability on the development projects. It helps to direct planners and extension workers to determine attributes of technologies and focus on progressive farmers. The main idea of this is to increase the rate of adoption with the belief that such technologies would trickle down to all farmers. A lesson learned from the literature is that many issues were ignored, because the diffusion model failed to address complex problems faced by the local people.

As a consequence, the 'top-down' process practised in the diffusion model favoured progressive farmers, and was biased against other farmers who were not so progressive. The fact that the diffusion model widens the gap between the affluent and less affluent farmers was a critical point against this model. It failed to alleviate rural poverty, increased social inequality and distributed biased development. It mainly focused on technical and economic aspects. Finally, it neglected human factors, which are a vital element of development. The model underestimated the power of local people to participate in voicing their actual needs for development. Many authors suggested that the diffusion model is no longer applicable and needs to be replaced by other models to address the needs of local people directly.

'Putting people first' in development programmes was imperative to work against biased development. In fact in reality the distribution of inequality was widening because
various factors hindered participation. The concept of ‘putting people first’ makes many promises and it claims to have ambitious outcomes. Participation and empowerment by locals in development projects and the leadership of local officials are the key elements of this approach. It focuses on the participatory approach. This approach has been considered one of the tools crucial for the success of projects. It transforms development and empowers local people in decision-making processes. The approach is ‘bottom-up’ and based on agendas developed by the local people themselves. It provides strategies for obtaining a deep understanding of the social and cultural behaviour of local people before introducing a development project to them.

The premise that emerged in the literature indicates that ‘putting people first’ is more than an ideological appeal. It also demands the participation of local people in all stages of development projects. It declares cultural and political reformation in development programmes. ‘Putting people first’ also stresses the significance of institutionalisation of participatory approaches so the disadvantaged have opportunities to voice their problems to higher authorities included in decision-making processes. It imposes new values and practices as requirements of scientists, planners and higher authorities to recognise the cultural practices, power relations and practical knowledge of local people in decision-making process, implementation and evaluations of projects.

Despite the exciting appeals of ‘putting people first’ there were many problems that hindered development agencies from adopting participatory methodologies. As a result these undermined the real participation it expected to achieve. There were arguments over the rigid bureaucratic procedures of centralised planning which developed dependency and led to misdirecting ideas and practices of participation. Imbalance of power relations between local people, extension workers and other actors involved shaping patterns of participation. The diversity of communities and interconnecting factors between development institutions and linkage agencies such as bureaucracies and institutional alliances in development programmes also reconfigured participatory methodologies.

With regards to the complex social, cultural and political practices, leadership styles are crucial to implementing the two models effectively. There were institutional issues raised in the literature that affected internal procedures and field practices of researchers,
extension workers and relationships of locals. There were arguments related to the close collaboration of development institutions with funding agencies. As a result, institutional alliances often misdirected practices of participatory approaches newly adopted in research and extension activities back into the 'top-down' processes.

The above arguments suggest that, as the main focus of inquiry and reality, the diffusion model and the 'putting people first' in development programmes clearly need reshaping to complement one other in technology-transfer. In order to achieve this, however, there were many issues in the literature as mentioned earlier, interactions of complex social, cultural, political and technological factors; power relations between actors; relationships of individual community with development institutions and their linkage agencies left unclear. These need further reworking in local conditions in the Philippines. Finally, the failure of the diffusion model in the past added complex problems and created intergenerational issues. This hindered 'putting people first' in development programmes. As well, this created difficulties for the development institutions like those the College had faced in the Sibalew and Linayasan case studies.
Chapter Four

Background Information on Rural Development in the Philippines

4.1 Introduction

Background information and a literature review related to the case studies on which this thesis is based are discussed in this chapter. The general background information describes geographic features, the demography, local government structures, historical development and changes in the country’s political system. The changes of successive political leaders and the major programmes they initiated concerning rural development are discussed. The origins of rural development programmes, as well as the policies of various political leaders when addressing the needs of rural locals, are also examined. Some studies conducted in other regions of the country are also reviewed. Studies and reports, as well as other related documents about the province, municipalities and barangays are also examined to help evaluate the results of the fieldwork and are also discussed in the case studies. A review of the previous development initiatives which were introduced in the Philippines is crucial for an historical analysis of the complex problems associated with the demonstration farms introduced in Sibalew, Feliciano and Linayasan.

4.2 The Philippines

The Philippines is predominately an agricultural country and many of the people live in rural areas.11 The country has a total population of about 76.34 million in 2000, an increase from 68.62 million in 1995 and 36.68 million in the 1970s.12 The population growth rate will be 2.71% with a population density of 229 people-per-square-kilometer,

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11 The Republic of the Philippines is an archipelago of 7,100 islands that constitute 300,000 square kilometers or 115,831 square miles, situated in the Southeast Asia region. The islands are surrounded by the China Sea on the west, the Pacific Ocean in the east, the Sulu Sea and Celebes Seas to the south, and the Bashi Channel to the north. The neighboring countries are Taiwan and China. In the west are Malaysia and Thailand. The islands of Borneo and Indonesia are to the southwest (Demaine, 1999: 1010).

12 This was based from the projection of National Statistics Office in the Philippines (NSO, 2000a, QUICSTAT-June 7: 4).
with an average of five people per family by the end of 2002. The country’s economy is dependent on the processing of agricultural produce and the manufacture of industrial products. Forestry and fishing are generally considered also the principal sources of income (Demaine, 1999: 1010).

In the 1950s, the literature shows the Philippines was rich in natural resources (Demaine, 1999: 1010). During this period studies show the country had “entered an era of rapid industrialisation as manufacturing expanded from 8 per cent of GDP in 1950 to 20 per cent in 1960 and the contribution of agriculture fell from 42 to 26 per cent” (Hutchison, 1999: 68 cited Jayasuriya, 1987: 85). Other reports indicate the Philippines had enjoyed relatively higher education levels and a domestic savings rate of more than 25 per cent in the mid 1960s, with real GNP per Capita of 413US$ (EAAU, 1998: 15-17). The literature shows a dramatic level of structural changes and economic growth in the Philippines which was the first country to industrialise after Japan (EAAU, 1998: 68).

In the 1980s, however, despite unprecedented economic growth during the 1950s - 1960s, the economy collapsed and this made the Philippines one of the poorest regions of Southeast Asia (Demaine, 1999: 1010; Rodan et al., 1999: 65-92; Chandler et al., 1987: 269-281). Studies indicate that poor economic policies, political instability and weak agricultural productivity were critical issues (EAAU, 1998: 9-44; Hutchison, 1999: 84-86). As a consequence, national growth stagnated and real income declined, but the spending on basic needs increased creating more economic difficulties for local people (Hutchison, 1999: 84-86; EAAU, 1998: 9-44; Gerders and Pehrson, 1998: 172-173). Because of failure of economic policies and limited finances for modernisation of technologies and infrastructure to create more employment, the Philippines was considered one of the “slow performers in the race for economic growth and development in the Southeast Asian region” (Halligan and Turner, 1995: 93).

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13 This was based from the projection of National Statistics Office in the Philippines (NSO, 2000a, QUICSTAT-June 7: 4).

14 The Philippines is divided into three geographical regions, Luzon, Visayas and Mindanao. These regions are further subdivided into 76 provinces, 60 cities, 1,542 municipalities and 41,825 barangays (Gerdes and Pehrson, 1998: 172-173). There are 730 inhabited islands. Eleven islands count for most of the total land area, as well as most of the population. Most of the larger islands are volcanic and mountainous and the Philippines has experienced a number of volcanic eruptions since the 1990s (New Zealand Development Trade Board, 2000, Country Profiles-Philippines: 2).
The literature shows that during the 1980s to early 1990s, slow agricultural growth and its impact on rural poverty were major concerns of the Philippine Government (EAAU, 1998: 247). In response to this various reform programmes were initiated (Hutchison, 1999: 82). There was restructuring of economic policies and the power of the state over decision-making process was decentralised (Hutchison, 1999: 82). The major aim was to regulate powers from the national to the local level, and this affected functions of the public sector (Nolledo, 1996). The assumption was localisation would improve agricultural growth. As a result, this would improve the rural economy, reduce poverty and problems with social inequality would be lessened (Gerders and Pehrson, 1998: 172-173).

Although the initiatives mentioned above have helped to minimise the biased distribution of development, a recent report by EAAU (1998: 247) indicates that, "several policies still distort incentives, constrain private agricultural investment, unduly penalise consumers and lead to misallocation of agricultural resources." Bureaucratic problems prevent the government sector from providing an immediate response to local problems, especially in the rural barangays (Panopio et al., 1994: 134-138; Gerders and Pehrson, 1998: 172-173). Other studies show that the lack of employment, overpopulation, low-income and inequality were the critical issues associated with these problems (Gerders and Pehrson, 1998: 172-173). Hutchison (1999: 79) characterised the Philippines state "as 'weak' in both senses of the term." Hutchison describes:

Democratic political institutions were introduced into the Philippines early in the twentieth century by the USA colonial administration, but they did not deliver representative government. Without concomitant socio-economic reforms the landed oligarchy was able to exercise its wealth and influence to dominate the national legislature. In power, members of this elite protected their own class and individual interests, not least by appropriating the resources of the state in particular ways (Hutchison, 1999: 79).

Hutchison (1999: 79) cited Paul Hutchcroft (1994) who explains:

[E]conomic returns from public office in the Philippines thus largely fell to politicians of private means, rather than to an elite within the bureaucracy: 'In contrast to "bureaucratic capitalism", where a powerful bureaucratic elite is the major beneficiary of patrimonial largesse and exercises power over a weak business class, the principle direction of rent extraction is [in this case] revised: a powerful oligarchic business class extracts privileges from largely incoherent bureaucracy' (Hutchison, 1999: 79).
This argument, linked to political patronage and corruption, has been a critical issue in development programmes (Coronel, 1998). Added to these problems was the large amount of foreign debt. The Filipinos have been inundated with foreign debt demands that created political instability (see Hodgkinson, 1999: 1029). In addition, the low earning capacity of people, the increased cost of living, especially for household necessities, as well as the expenses of education and health, were all reasons for reform, and by 1998, there was severe economic pressure on the majority of Filipinos; poverty affected between 40% to 70% of total households (Gerdes and Pehrson, 1998: 182).15

Another problem was the peso depreciation. The EAAU (1998: 22) report revealed that the Asian currency crisis resulted in a 29 per cent real depreciation of the peso on a trade-weight basis from January 1997 to the end of February 1998. The reports indicated:

Heavy overvaluation of the peso for much of the post war period combined with the protectionist regime that maintained this overvaluation was a central cause of the Philippines' failure to develop economically [in] period to the early 1990s (Intal, 1992; 1995). Peso overvaluation persisted throughout the 1960s and 1970s because of the strong ideological resistance to depreciation; agricultural landlords and foreign traders and processors would have benefited directly from it (EAAU, 1998: 22).

As well as fiscal problems and the slow response of the government to provide employment there has been a brain drain as many Filipinos left their country and worked abroad as contract labour or domestic helpers (Vasques, 1992). The Filipino overseas workers strengthened the social and economic networks of the Philippines in other countries. The overseas Filipino workers abroad sent money to their families boosting the economy. Despite the economic advantage from overseas workers there were also negative consequences. This enforced separation and division of family life created other difficulties, and some loss of life occurred for Filipinos in other countries (Battistella and Paganoni, 1992). Though access to work overseas provided dramatic economic improvement for many families, the traditional Filipino lifestyle, cultural values and practices were threatened (Vasques, 1992: 41-67). According to Vasques:

The social impacts are felt by the contract workers while they are in the receiving country and after their return, as well as by the communities and families they leave behind. Working in a different society affects the individual worker's value system, his

15 The average inflation rate was 9.8% in 1998 (NSO, 2000b, January 5 Press Release: 1).
[sic] view of the society he [sic] has left behind and his [sic] own coping mechanisms in an alien society. The worker's absence from his [sic] family for long periods also affects, for good or ill, the family and marriage relationships. In the communities, social mobility, power structures, division of labor, and traditional values systems may be affected... The full impact of the various social processes on the workers, their families and the communities, would be co-determined by other factors like the length of stay overseas, the prevailing culture in the receiving country and the possibilities of permanent residency or citizenship in that country (Vasques, 1992: 41-67).

This situation occurred especially in the rural barangays. Over the last three decades the transformation of social and political structure influenced the economic and political conditions of the country. Many national problems affect development processes at local levels.

4.3 Historical Overview

This section discusses the transformation of social and political structure in the Philippines. The discussion focuses on the changes in social and economic development initiated by the three most recent national leaders. Awareness of the changes in the social and political structure helps an in-depth analysis of how human, economic, and technological factors interacted between the national level and the local economy. Analysis of the interaction of these factors helps us understand why the diffusion model remains popular with bureaucracies and the 'putting people first' approach to development is difficult to adopt. It helps also to examine interaction of extension policies of the Aklan State College of Agriculture with the social, economic, cultural and political practices of locals in Sibalew, Feliciano and Linayasan.

The Philippines has been dominated by Spaniards for more than three hundred years, from 1564 to 1898, and was then under American rule for forty-seven years from 1899 to

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16 The literature has shown that the Filipino people were a blend of cultures from East and West (Brown, 1999; Dana, 1999; Bautista, 1988). Ferdinand Magellan, the Portuguese navigator, discovered the Philippines archipelago in 1521 (Brown, 1999). The islands were named the 'Philippines' in honour of Philip II of Spain by Magellan in the early 16th century (Gerdes and Pehrson, 1998: 174).

17 "The extremely fragmented nature of indigenous political organization at the time made large-scale coordinated resistance impossible. Political authority was focused on the barangay, commonly a kinship community which contained between 30 and 100 families. These restricted communities were frequently at war with each other, but no nation-wide state organization emerged from these conflicts. Thus, the pre-colonial archipelago did not sustain the great indigenous empire, or powerful traditional kingdom, that provided a foundation for the modern nation-state in the rest of South-East Asia" (Brown, 1999: 1011).
1946 (Bautista, 1988: 144). A principal activity of the Spanish in the Philippines was the propagation of Roman Catholicism and 83 per cent of Filipinos described themselves as Catholics.\textsuperscript{18} During this period agricultural production was based on the family subsistence (Chandler \textit{et al.}, 1987). Under the American regime the literature shows the Philippines became heavily “dependent on agricultural exports, and the rural masses found no relief from rigorous exploitative conditions of tenancy” (Brown, 1999: 1011). They also dominated and controlled the education and political system of the Filipinos, until independence was granted (Bautista, 1988: 144).

In 1946, on July 4, the Philippines obtained its independence from the United States political administration (Brown, 1999: 1011). The literature shows that though the country obtained self-government in this period, the United States remained in control of “foreign relations and national defence” (Brown, 1999: 1011). As well as this, the United States has influenced any “constitutional amendment or any legislation affecting currency, coinage, imports or exports during this period” (Brown, 1999: 1011).\textsuperscript{19} An example of this was the import-substitution in the 1950s described by Hutchison (1999: 75 cited in Doronila, 1986: 42) who explains that this “largely reproduced the oligarchic socio-economic structure of the Philippines.” This recent history has had an impact on the social structure and political system (Hunt \textit{et al.}, 1997; Garcia, 1994; Panopio, \textit{et al.}, 1994; Bautista, 1988). Such influences still exist in the Philippines and need to be considered in economic, cultural and political aspects of development. Awareness of this will provide insights into the way social, economic, cultural and political factors at the national level interacted with the local economy.

The Philippines is well known for its political revolution and social transformation (see Chandler \textit{et al.}, 1987). The country had been under the dictatorship of Marcos for almost twenty years from 1965 to 1986.\textsuperscript{20} During this period the key actors in the political

\textsuperscript{18} This was quoted from The World Factbook (1999, Country Listing-Philippines: 4).

\textsuperscript{19} In July 1935, a commission drafted the ‘Philippine Constitution’ that was approved by the President of the USA and later ratified by the Filipino electorate in May 1936 (Brown, 1999: 1011).

\textsuperscript{20} In 1972, “Martial Law” was implemented to centralise the executive power under the administration of the Marcoses (Halligan and Turner, 1995). During this administration, active participation of the military to control the people and to impose their demands was an issue about which the people wanted to voice
municipalities, but the provincial government lost some of their powers (see Gerdes and Pehrson, 1998: 176).

During the Aquino administration, a number of development programmes were initiated. One was the Comprehensive Agrarian Reform Programme, designed to provide equal access to agriculture for men and women. Some suggested that they should be given equal rights to own the land they cultivated, and equal access to the support services they needed to make their land productive (Adriano and Castillo, 1991: 291). But Halligan and Turner (1995: 95) argue that many development programmes introduced during the time of 'the Aquino majority' had a limited impact on the people. According to Adriano and Castillo (1991: 291) "[a] lack of sex-differentiated data continues to hamper efforts to monitor and give equal prominence to women's concerns in agrarian reform." Finally, a report indicated that "Aquino's promises of major agrarian reform and land redistribution never really materialised" (Gerdes and Pehrson, 1998: 176). The implementation of the Local Government Code of 1991 and policies on agrarian reform were also a priority of the next administration (Gerdes and Pehrson, 1998: 176). Towards the end of term of the Aquino, Hutchison (1999) comments:

Aquino attempted to broaden the support base of her regime with overtures towards the rapidly growing NGO-PO [Non-Government Organisation–People Organisation] sector. However, there was little substance to the claimed motive of 'people empowerment' and such moves did not do much to counter assessments that the Aquino administration had presided over the return of the traditional political and economic elite (Hutchison, 1999: 81, cited in Clarke, 1994).

In 1992, new, ambitious political leaders were elected, and the government was reorganised under the Ramos administration. Ramos was known for his military background. In his administration, priorities were "to restore political and civic stability; to nurse the economy back to health and restore it to growth (for example, dismantle an oligarchic economy with monopolies and cartels); to address the problem of crime and corruption; and to reduce poverty" (Gerdes and Pehrson, 1998: 177). The leadership of the Ramos administration was enhanced by the implementation of the '1991 Local Government Code' that gave more power to elected officials or politicians when administering countryside development projects in their regions (Nolledo, 1996). During this period the 'Community Development Fund' (RA 7645) was initiated to distribute state financial resources to the politicians to introduce economic reforms, especially in
the countryside (1993 ASCA-ERDSC Annual Report: 3-4). However, despite the fact that many benefited through this approach, the literature indicates that the Community Development Fund scheme was misguided and created complex issues in the countryside development programmes (see Coronel, 1998; Stiles, 1991). Coronel (1998) also compiled examples of the mishandling of the Community Development Fund.

Ramos implemented various development programmes, and the follow-up implementation of Aquino's Comprehensive Agrarian Reform was a popular well-funded programme (Garilao, 1998). However, political interests perverted the implementation of Comprehensive Agrarian Reform (see Angeles, 1999; Garilao, 1998). Garilao argues a major concern for the implementation of the agrarian policies was that they conflicted with some policies prescribed under the '1991 Local Government Code' as higher elected officials were given more power to administer funds and development projects in their regions. This contradicted the principles and objectives of the 1991 Local Government Code that aimed to curb the power of politicians. This was consistent with the explanation of Ernesto D. Garilao, the Secretary of the Department of Agrarian Reform, who claimed that agrarian reform was one of the top priorities of the government under the Ramos administration:

The major cause of the skewed income distribution structure is the persistent concentration of wealth and income. Traditionally, the primary basis of wealth has been ownership of agricultural land. With the country's take-off to industrialization and the subsequent decline in importance of the agriculture sector, the sources of wealth have expanded. Unfortunately, the pyramidal shape of the country's income hierarchy remained as steep as ever. ... One reason for the skewed income structure was the industrialization strategy applied by the past administrations protected inefficient but politically influential industries. It also enabled these enterprises to have easy access to capital-intensive rather than labor-using means of production. Moreover, the different land reform measures implemented in the past hardly made a dent on the skewed land ownership structure in the countryside (Garilao, 1998: 11).

The literature indicates that the Ramos regime focused more on decentralised policies, but commentators on his administration criticised it; that "no real attempt has, in fact, been made to reform other aspects of the political system" which impacted on "the issue of the capacity of state" (Hutchison, 1999: 83). The literature shows that the political agendas of Ramos to strengthen the economy and to provide greater state autonomy and qualities of leadership "have not generally been matched by more fundamental indicators of institutional change" (Hutchison, 1999: 83). Finally, the evidence points to "the other
policy shifts being induced by external pressures on the state” (Hutchison, 1999: 83). Gerdes and Pehrson argue that the economic growth that had occurred had not trickled down to the poor and “the poor remain poor” (Gerdes and Pehrson, 1998: 178). Hutchison claims that the bureaucracies were not overhauled “to inculcate a culture of public service over private advantage,” which meant the “party system continues to be dominated by personality-based coalitions of politicians with independent power based” (Hutchison, 1999: 83-82). Hutchison’s analysis revealed:

[The Philippine] government processes are still widely subject to particularism and patronage; economic liberalisation has not been accompanied by institutional changes to strengthen the state. As such, recent efforts to deregulate the economy are better understood as a response to the fiscal crisis of the state; consequently, they are in conformity with the post-war pattern of policy making (Hutchison, 1999: 84).

In 1998, the new Estrada government faced similar problems. The political instability and accelerated unemployment remained critical issues, and the trade deficit was also critical in Estrada’s administration (Gerdes and Pehrson, 1998: 178). Under the Estrada administration, another new policy was initiated, the Republic Act 8435. The major aim was “to help and empower the farming and fishing communities and the private sector to produce enough, accessible and affordable food for every Filipino and [a] decent income for all.” However, there are many obstacles faced by the public sector before this national objective could be realised in the local level. Awareness of the history of the development projects introduced will help to examine why many development projects were less successful than had been expected by the locals in rural areas. The integrated extension programmes in Sibalew and the demonstration projects introduced to Linayasan discussed in this thesis are amongst them. However, before examining those case studies, it is also important to cite examples from other sources of literature related to the rural development programmes in the Philippines.

21 This is known as the Agriculture and Fisheries Modernization Act of 1997. (The Philippines Department of Agriculture, 2000, May 26, Agriculture and Fisheries Modernization Act No. 8435).

22 Quoted from the Philippines Department of Agriculture (2000, May 26, Mission/Vision: 1).
4.5 Development Programmes Related to the Case Studies

This section examines developmental programmes which have influenced the approach of those described in the case studies of this thesis. Drawing from the works of other authors the examination is focused on why the diffusion model is attractive to bureaucracies and the 'putting people first' approach is difficult for development institutions to implement through their programmes. The discussion helps us to evaluate issues about inequality in development and College culture, as well as institutional issues, which will be discussed in the final chapter of this thesis.

In the Philippines, the literature shows that as a result of the human actions unleashed by modern technologies and the globalisation of the economy the agricultural production of this country has changed extremely over the past forty years (Hutchison, 1999; Hunt et al., 1997; Morton, 1996; Garcia, 1994; Panopio et al., 1994; Chandler et al., 1987; Anderson, 1982). Capital-intensive commercial cropping methods expanded and traditional farming methods based on the practical application of knowledge of farmers for the subsistence of families declined (Hutchison, 1999; Panopio et al., 1994). Hutchison (1999: 27) described the pattern of economic development associated with a social structure dominated by wide disparities and concluded that in the last forty years social conflict has increased (Hutchison, 1999: 72).

Three examples of national development programmes provide a background to the development projects described in the case studies. The first development programme was the Green Revolution that introduced capital-intensive farming methods in the 1960s (Panopio et al., 1994: 319). This used the diffusion model as a tool to trickle down modern varieties of rice and crops, use of commercial fertilisers and spray chemicals, and introduced improved breeds of animals in rural barangays. In support of the Green Revolution, international funds were deployed for agricultural development through introduction of high-yielding varieties of rice. In the 1970s, the Masagana 99 rice production programme (a sub-programme of Green Revolution) was initiated to increase the rate of adoption of modern technologies, but this was favoured only by farmers who

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23 The term "Green Revolution" is widely used but in this thesis it refers to a specific Philippine Government programme of this name.
were already rich (Panopio et al., 1994: 319). Masagana 99 ignored the practical farming methods of farmers and failed to provide equal benefits across the local social structure (Panopio et al., 1994).

The second development programme was the Integrated Rural Development Scheme in 1970s (Panopio et al., 1994). This scheme was designed to combine the grants and technological and material assistance from various agencies in one barangay to develop demonstration farms or model projects which would help technologies and economic development trickle down to other rural barangays. The participatory approach in development was introduced to implement the integrated rural development programmes. However, this scheme had many shortcomings which had an impact on national development policies. Finally, the last development programme was the Countryside Agricultural Development Project of the 1990s (Panopio et al., 1994: 320). This project used a 'self-help' approach to establish livelihood projects and development of infrastructure facilities in rural areas. This programme attempted to promote ‘putting people first’ in development programmes.

In line with the concerns of the Philippine Government on slow agricultural output growth during the 1980s to early 1990s, and its implications for rural poverty, various farming methods have been introduced recently, such as the community-based resource management examined by Bergonia (1996) and the multistory-multiple cropping system evaluated by Orno (1996). There was also modification of traditional agroforestry practice to protect the upland areas from soil erosion and diversify farm production by combining different crops such as rice, corn, and vegetables (Duma, 1996; Laquihon, 1987 and 1989). Livestock was also introduced through the modified agroforestry methods. However, in actual situations the literature shows there were contradictions between theories and practices by the development institutions (Michener, 1998; Biggs and Smith, 1998; Bentley, 1994; Merrill-Sands and Collion, 1994).

The effect of these programmes was similar to that of the Green Revolution (Hutchison, 1999; Angles, 1999; Hirtz, 1998; Hunt et al., 1997; Otsuka, 1996; Miclat-Teves and Lewis, 1995; Panopio et al., 1994; Chandler et al., 1987). They were also unable to address the needs of locals and continued to threaten the traditional cultural practices and natural environment in rural areas (Kerkvliet, 1990; Chandler et al., 1987). Biased
development was the major critical issue (Gerders and Pehrson, 1998). There were changes in the local social structure, as the social, economic and political practices brought about by the introduced technologies disturbed the harmony of rural groups (Kerkvliet, 1990; Chua, 1990; Sierra, 1989; Anderson, 1982). Through the new labour intensive policies, the locals were allowed to work with development agencies to initiate appropriate solutions to resolve the issues and complex problems facing many locals in rural areas (Hutchison, 1999). A recent report by EAAU (1998: 247) about the Philippines revealed that agriculture is slowing economic growth and this was because:

> Weak agricultural productivity and competitiveness performance limits agricultural and rural income growth, and constrains rural demand growth and rural enterprise development. It also limited the capacity of the agricultural sector and rural economy to absorb labour, increasing rural urban migration and straining urban infrastructure (EAAU, 1998: 247).

Critics suggest a holistic approach is needed when introducing rural development programmes (Sierra, 1989: 13, see also FAO, 1997). It would concentrate on social and cultural aspects, instead of promotion of modern technologies (Axinn, 1988: 12). In the Philippines the literature on technology-transfer showed that the introduced modern farming technologies improved agricultural production, but also brought various consequences to the local natural environment and threatened the traditional cultural practices of locals in rural areas. Subsequently, the findings of other studies in the 1980s indicated that the impact of agricultural development brought about radical changes in rural social structure (Rikken, 1993; Chua, 1990; Sierra, 1989; Simpas et al., 1983; Anderson, 1982; Ledesma, 1982; Eder 1982; Del Rosario, 1981; Sosmena, 1979).

Studies reported that rural people questioned the government about the distribution of benefits from agricultural development programmes and whether this alleviated their poverty (see Gerders and Pehrson, 1998; Panopio et al., 1994; Kerkvliet, 1990; Chandler et al., 1987). Unequal distribution of benefits was often reported in the studies reviewed (Angles, 1999; Hirtz, 1998; Gerders and Pehrson, 1998; Eder, 1994; Stiles, 1991 and Chua, 1990).

Literature from outside the Philippines indicates that foreign-sponsored agricultural development projects have also had the same impact on the lifestyles of rural people in developing countries (Tisch and Wallace, 1994; Cernea, 1991; Chambers et al., 1989).
Gender inequality, including access to resources and participation in development, is always a central issue in development projects (Goldey et al., 1997; Tisch, 1992; Hyrzer, 1987). The Philippines has also had problems with this issue (see Paris and Luis, 1991; Adriano and Castillo, 1991).

Gender inequality is one of the issues ignored in the diffusion model and it continued to be controversial in ‘putting people first’ development programmes. It is apparent from the works of other authors that the traditional customs of rural people could be one of the sources of inequality, particularly in relation to gender issues in agricultural production (Roquia, 1995: Tisch, 1992; Adriano and Castillo, 1991). Tisch (1992), as well as Adriano and Castillo (1991), asserts that men and women have different access to, and control of, resources, and unequal access to development projects and that this is a common issue. Adriano and Castillo (1991: 289) describe how women’s participation in agricultural production is constrained by their responsibilities at home, a lack of capital, limitations of technical knowledge and poor access to agricultural support services.

Chua (1990) studied the impact of farm mechanisation in rice farming in rural communities in the Philippines and noted that farm mechanisation had changed gender labour patterns. This is similar to the findings of Tisch and Paris (1994), Banzon-Bautista and Dungo (1987), Res (1985), Illo (1985) and Eder (1982) that gender inequality is a controversial issue in the adoption of introduced technologies in rural areas. This is so, because many farming practices that could be done manually by men and women have become redundant because of mechanised equipment (Chua, 1990). In farming activities that involved heavy manual labour, such as land preparation, transplanting and harvesting gender issues were important (Tisch and Paris, 1994). Some restrictions were related to attributed cultural practices that restricted women because of their biological and physical characteristics (De Guzman, 1995: 1).

Banzon-Bautista and Dungo (1987) noted that the work done by women in farming has been displaced more than the work performed by men. Banzon-Bautista and Dungo explained that, aside from the displacement of labour, there were other institutional and ideological factors that limited economic opportunities for labour in rice production, particularly for women (Banzon-Bautista and Dungo, 1987: 285). The competition amongst workers for rural-based employment resulted in labour arrangements between
landowners and workers' groups. For example, a small group of three or four farm households or landless families organised themselves to render free weeding services in exchange for their rights to harvest the rice. This arrangement was agreed to by both parties, the landowner and the local labour group. Some locals in the Sibalew and Linayasan case studies also practised the same arrangements for their labour.

Studies that particularly focused on women's participation in agricultural production elsewhere in the Philippines raised issues which were also examined in the Sibalew and Linayasan case studies (Shields et al., 1996; SEARCA, 1994; Paris and Luis, 1991; Illo, 1985). A study of the role of gender in farming systems in the northern part of the Philippines showed that men and women have different access to crops and livestock production (Paris and Luis, 1991). Paris and Luis indicated that although women performed various tasks in production, men often dominated different agricultural activities. Their findings revealed that in animal production, large animals were usually considered the property of the men, unless the head of the household was a widow. When applying for credit, men had greater access to formal loans, while women had more access to informal loans with higher rates of interest (Paris and Luis, 1991: 133-36).

Illo (1985) also investigated the participation of women in the production of food and other marketable goods in two villages, one of which practised mechanised rice-farming operations. The study was conducted in the northern part of the Philippines, using 100 married women as participants during panel interviews. The findings revealed that although the presence of adult children and elder members of the family relieved the women of having to take care of younger children, the women at home usually did other tasks and rendered social obligations alone (Illo, 1985: 75).

Illo (1985: 75) explained that the women were engaged in activities such as preparing meals, washing household laundry, caring for the younger children, especially the infants, and keeping the house and backyard clean and tidy. They planted vegetables and raised poultry for family needs and to earn extra income for their family. Aside from these activities, they performed other tasks such as gathering firewood and fetching water from the nearest spring. Illo mentions that the married women spent between 37 to 44 hours a week in home production, while those married women who had preschool children spent from 52 to 63 hours a week doing household activities (Illo, 1985: 75).
of these activities were similar to what the rural women were doing in Sibalew and Linayasan.

In market production activities, Illo described the way women do different tasks to gain an income. Women were involved in rice and other crop production, livestock and poultry raising, backyard gardening, operating small stores and other economic enterprises. In rice and crop production, the women work in the fields doing such things as planting, weeding, harvesting, threshing and supervising hired farm labour. Women also do some secondary work tending the working animals and preparing and bringing food to workers on the family farm (Illo, 1985: 75). Based on these economic activities of women, Illo explained that the women who belonged in poorer families tended to spend more time earning than the more affluent women do. The contribution of working wives was about 26 to 31 percent of the family income, compared to 14 to 18 percent in better-off households (Illo, 1985: 75).

Further, Illo (1985: 84) reported that women’s access to resources varied between household families. This was due to the resources and status of women and where their family belonged. Illo’s study showed that married women were able to gain access to productive resources used in farming. Illo found that this was based on the land resources, especially the land area and type of farm, either irrigated or non-irrigated. Women who belonged to landless families had less access to resources. The general findings of the study suggested that mechanised technology in rice-farming operations affected village women differently. Landless women were more vulnerable than those women who belonged to better-off farming families (Illo, 1985: 88). Women’s participation is one of the subject areas also discussed in the case studies.

Kerkvliet (1990) conducted a study on class and status relations in a northern part of the Philippines that was similar to the social and political situation in Aklan, where the case studies of the thesis were undertaken. Kerkvliet maintained that the activities of most locals in his study area were linked to politics, class and wealth. Individuals in official positions in organisations that were crucial to the relationships amongst local people in this area had considerable power. The relationship between the rich and the poor reinforced the social networks within and outside villages. Kerkvliet explained how people were all tied by traditional obligations that are maintained through the principle of
reciprocity. Locals in the Sibalew and Linayasan case studies also describe similar connections.

Local leadership is another crucial element in the development of rural communities in the Philippines. This was emphasised in the 1991 Local Government Code for the country with Non-Government Organisation - Government Organisation representation in various facets in administration of development programmes (Hutchison, 1999: 82 and see also Nolledo, 1996). The power of central government has devolved to the local government to regulate political powers by allowing local officials to administer development of their barangays (Nolledo, 1996). However, the literature shows that the local leaders use different styles of leadership to administer their communities and the use of their political power varies between individuals in the Philippines. As elsewhere, this has an impact of development projects (Rikken, 1993; Simpas et al., 1983 Sosmena, 1979). Awareness of this issue helps to evaluate the role of barangay officials in Sibalew and Linayasan, which is critical to understanding on inequality in distribution of project benefits across the social structure. An example of this was the landlord-tenant relationship described by Lewis (1972) who examined the landlord and tenant relationship in rice farming communities in the Philippines. This study indicated that the relationship between the families of landlords and tenants in the barangays was strengthened through the use of reciprocity (Lewis, 1972: 189). Under normal conditions the relationships between landlords and tenants were nurtured by a debt of honour or reciprocity in which tenants were often disadvantaged. This occurred because of a moral obligation that required an exchange of ‘extra’ goods and services that had been agreed between them. The form of the arrangement could be solicited or unsolicited by either the landlord or the tenant under conditions which appeared to be favourable to them both (Lewis, 1972: 189).

Lewis (1972: 198) indicated that the tenants paid the landowners a percentage of their crops for the right to farm a piece of land that involved having a share of farm products. In the case of the rice crop, tenants received seventy percent. For other farm products like vegetables, the sharing was divided on a 50-50 basis (Lewis, 1972: 189). However, this arrangement could change depending on the relationship between landowners and tenants. In some cases, the kind and volume of products produced by tenants could change the sharing arrangement of the products. Lewis claimed that the tenant supplied
firewood or vegetables to the landlord and repaired fences, and the tenant’s wife assisted the landlord’s family in helping during a party or on other occasions. In return, Lewis explained, the landlord assisted his tenant in settling tax problems or providing legal advice. Lewis also noted that the landlord might have assisted a near relative of the tenant in obtaining a job in the town, provided medicine during an illness in the tenant’s family or even provided advances on money payable during harvest. Occasionally, in the rural barangays, the landlord acted as a secondary sponsor for the marriage or baptism of the tenant’s child (Lewis, 1972: 189).

On the whole, it was found these reciprocal arrangements favoured landlords much more than tenants and replicated the arguments indicated in Kerkvliet’s study in 1990, which described how the tenant-landlord relationships could become more explicitly conflictual and even violent. According to Hutchison (1999: 740) the complex pattern of class relations in rice agriculture has generated new alliances and conflicts that make it difficult for direct producers to come together around the issue of land reform. Angeles (1999: 667) outlined the problems in implementation of agrarian reform linked to the establishment and maintenance of kinship networks and political patronage which affect the role of the development institutions.

Recently, the FAO (1997) report on “Issues and opportunities for agricultural education and training in the 1990s and beyond” revealed that the Third World countries, including the Philippines agricultural education and training, failed to adapt and respond to the realities of rural societies (FAO, 1997, Introduction Overview: 1). The report showed that the agricultural education system in the Philippines “generally lacks quality and relevance due to the rapid proliferation in the number of institutions and expansion of enrolment,” claiming that this was a result of unplanned growth, coupled with financial constraints and a shortage of qualified teachers. The institutions tended to be standard, overcrowded and under-equipped (FAO, 1997, Introduction Overview: 4).

Consequently, the report further indicated that the graduates produced were usually poorly trained and had difficulty qualifying for employment in their respective fields with the one exception which was the College of Agriculture of Los Baños where most graduates were employed in their field of study (FAO, 1997, Introduction: 4). The FAO makes the point that “the extension methodology portion of the curricula and
programmes of study of many agricultural education institutions is inadequate and in need of review and revision to make it more relevant to current needs” (FAO, 1997, Introduction: 4). This thesis is timely and addresses the suggestions of FAO and other issues about inequality in development the Sibalew and Linayasan case studies.

4.6 Conclusion

This chapter examined the economic transformation and the changes in social and political structure of the Philippines. This country is part of the dynamic East Asian region. Postwar it enjoyed moderately higher education levels and saving rates, export oriented agriculture and developing industrial sectors. However, poor economic policies and political instability meant growth stagnated and real incomes in fact fell for most of the last three decades. Agricultural development and increased economic growth are the major concerns of the Philippine Government. However, weak agricultural productivity and inadequate rural infrastructure limits ability absorb labour and increasing rural to urban migration results. The brain drain decreased the growth of the local economy. This was a critical issue in the dramatic increase in complexity of the social system.

The literature shows that a massive economic transformation had started in the 1950s, through foreign aid assistance which mostly came from the United States. Import-substitution industrialisation for the rural economy was introduced to the Philippine Government. International aid assistance through packages of development programmes was provided for the Philippine Government to promote economic development and modernisation of technologies and was controlled politically by the elite business group. Access to the imported agricultural technologies and the adoption of such technologies was given more attention and ten years after the methods of agricultural production had changed dramatically. The traditional farming methods based on the practical knowledge of farmers were replaced by modern capital-intensive farming. As a result, the adoption of modern technologies increased agricultural production and national growth improved dramatically. The radical change in economic growth and social structure indicated the Philippines might industrialise as Japan had, but this assumption has not been fully realised yet.
There is still much work to be done in order to achieve the projected development goal. While the Philippines has progressed significantly in the 1980s there were severe economic crises and political uncertainties. Furthermore, there was a huge amount of foreign debt and overvaluation of the peso, which increased the difficulty financing various development programmes. Because of the failure of economic policies, national growth stagnated, real income declined and economic pressure was increased. This included persistence of problems of poverty, unemployment, low-income, overpopulation, and biased distribution of development. The literature indicates that the unstable political system, poor economic policies and inconsistency of bureaucracies all hindered public sector provision of local services especially in rural areas. Political patronage and institutional alliances were strengthened. Corruption was a critical issue in development programmes.

Another issue was related to intergenerational problems as the influence of the colonial past interacted with contemporary western culture. Many skilled Filipino workers left their country and went abroad creating a drain on the expertise of the country. Overseas contract workers boosted the national economy and global social networks, but inequality was left unsolved which was a critical issue over cultural practices and against the political structure of the country.

Over the last three decades, the Philippine Government has implemented various programmes to reconfigure economic policies and the political structure to address all those problems. Decentralisation of development programmes and the devolution of the powers and functions of the public sector from national to local level were important policies introduced. International relationships were also addressed during the regime of the three most recent national leaders. The Marcos regime focused on industrialisation, modernisation of agricultural technologies and infrastructure development over twenty-five years. The Green Revolution was introduced and Masagana 99 rice production was a classical example of using the diffusion model to promote modern technologies. The introduction of Martial Law had increased the power of Marcos, but the problems of corruption undermined local trust of bureaucracies in the public sector.

Aquino restored democracy in 1986. The Local Government Code of 1991 was created to devolve the powers and functions of the public sector from national to local level. The
Comprehensive Agrarian Reform Programme was also initiated to address inequality in land distribution. However, these policies were not fully realised. The practice of democracy and the participatory approach in development process remained continual issues in the national development programmes.

Ramos maintained the major reform policies of Aquino with a main focus on decentralisation of political power and intensive implementation of the Comprehensive Agrarian Reform Programmes and infrastructural development. The Community Development Fund was allocated to support various local development projects. These projects were implemented through elected local leaders attempting to promote participation and empowerment strategies through national agenda in development. However, in practice it was apparent in the literature these strategies had political motives and political patronage was a crucial issue in development programmes.

Despite the efforts of these three political leaders, the literature indicated bureaucratic procedures and inequality in development remained crucial issues. Powers of elected political officials increased and the elite business group dominated development. Unequal trickle down of development in rural areas was an unsolved problem. This was addressed in the new Estrada administration on the pro-poor development programmes which initiated modernisation of agricultural and fisheries development. How Estrada put these policies into reality was a critical issue. The fact is that the literature shows the interactions of these national policies with the local problems often problematic.

Sensitivity to the critical problems of the previous national development programmes is important to the reconfiguration of current approaches in development programmes. The Green Revolution, Integrated Rural Development Scheme and Countryside Agricultural Development Project illustrated the complexity of human, economic, and technological factors which hindered development. Implementation of these schemes illustrates the conflicting power of the diffusion model and 'putting people first' approach in evaluation of the strengths and weaknesses of these two models.

Many authors have examined the shortcoming of previous development programmes and their effects on the local social structure. The issues raised include gender inequality, imbalance in access to the project benefits and the leadership style. The traditional
obligation of barangay officials to maintain political patronage contradicted their administrative tasks and was central in administration of local development programmes. There were issues also on the radical changes to rural lifestyle affecting the traditional practices of locals. The landlord-tenant relationship became more complicated. At the local level the overall effects of modern technologies on the social structure widened inequality and the natural environment was threatened.

The development assistance distributed to rural communities was often biased in favour of those already advantaged. The impact of trickle down of technologies shown in the literature meant the poor remained poor and the benefits from the development introduced went to affluent families that already had capital for farming. The selection of farmers for the projects became a controversial issue. Consequently, the various development projects introduced led to an increased concern of locals in rural areas regarding the effectiveness of the technologies introduced to them. The key production areas for commercial-based crops grown were identified, but other crops traditionally grown by local farmers were neglected. The literature indicates that there was a communication gap between development institutions and local farmers. The interactions between local people and development institutions were crucial to securing funds and other resources. The literature shows the failure of past development and political initiatives changed the priorities of the countryside programmes in the 1980s in an attempt to meet local needs. However, unequal opportunity to funds from government and grants from foreign aid institutions remained a serious problem for development agencies. The programmes of the development institutions were affected, especially those agricultural institutions concerned with rural development projects. The literature indicates the effect of technological and economic development adversely affected the social structure and increased inequality.

In conclusion, over the last three decades social and political transformation has influenced the national policies, economic development, and the current political uncertainties of the country. At the local level, changes in the rural lifestyle and social structure reflect this. Evidence is replicated in the Sibalew and Linayasan case studies. However, before proceeding to the case studies, it is also important to examine the cultural values and other practices of Filipinos in rural areas. This will be the focus of the discussion in the next chapter.
Chapter Five

Examining Rural Cultural Practices in the Philippines

5.1 Introduction

This chapter describes cultural practices in the rural areas of the Philippines. The discussion is divided into six sections. Following the introduction is section two which defines culture in the Filipino context. The third section is a brief description of the historical development of the cultural values of the Filipinos. The fourth section discusses cultural elements that shape present Filipino cultural practices. The fifth section outlines Filipino cultural values crucial to rural development programmes in the Philippines. Section six, the conclusion, highlights the role Filipino culture has played in the development of the country. The significance of the cultural values of Filipinos to the diffusion model and the 'putting people first' approach is described in brief. This helps analysis of the way national issues interacted with local problems and issues of inequality in development programmes. It also helps to clarify overlapping issues between cultural values and bureaucracies and institutional factors, that combined to influence national development programmes in rural areas.

5.2 Defining Culture in the Filipino Context

This section examines the role culture has played in the transformation of social and political structure in the Philippines. The discussion focuses on the importance of culture to the introduction of development programmes in rural barangays. The literature shows culture plays a critical part in the transformation of society, but it can also hinder development (Espiritu et al., 1995; Garcia, 1994; Panopio et al., 1994). Sensitivity to how national cultural values of Filipinos interact with the local social and political structure is crucial to the analysis of complex problems in development programmes. It provides in-depth insights into how cultural values interact amongst people of different class and status position in relation to the complications of the diffusion model and the 'putting people first' approach when designing and implementing development programmes.
As mentioned in the previous chapter, there are many complex problems relating to cultural practices left unsolved, and how the two models operated needed further evaluation in other local conditions. The literature shows that the use of the term 'culture' varies between different disciplines. Williams (1976: 76-82) defined culture as 'right knowing and right doing.' Hunt et al. (1997: 56) described culture as a complex set of patterns impressed upon the individual by his/her group and passed down from generation to generation through the process of interaction. Culture included all the material traits of a people as well as the non-material elements.

Garcia (1994) suggested that one way to examine the specific components of culture more closely was to look at the functions individuals embrace and how they perform, in a given society. He cites the theory of functionalism which could be used to view the relationship of society and culture as an interdependent system, in which the individual has to establish particular functions in order to operate within the wider social system (Garcia, 1994: 46). An individual exists with others who are also determined by the social and cultural factors that produce the entity called Filipino society. Such individuals interact through particular social and cultural functions that, in an integrated fashion, affect the interests and values of the overall society. As an example, Garcia mentioned that without the cultural trait of being hospitable, the social life of the Filipinos would not be so colourful. There is an element of reciprocity involved. The host family will serve their best to the guests, and in return they will also expect the same hospitality when they become the visitors.

Giving an example of Filipino hospitality, Garcia maintained that a host family feels obligated to do everything possible to make a guest comfortable, even if it means sacrificing savings to serve the best food. Other cultures may find this practice unusual or

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24 Edward B. Tylor (1871: 1), an English anthropologist, gave a classic definition of culture as that "complex whole which includes knowledge, belief, art, law, morals, customs, and any other capabilities and habits, acquired by people as members of society" (in Panopio et al., 1994: 35; Garcia, 1994: 34). Robertson (1989: 419) suggests the term culture refers to "an entire way of life" (see also Bilton et al., 1982: 626). According to the United Nations there were about five hundred different definitions for the word culture that were available from contemporary literature (UNESCO, 1986: 8). Hunt et al. (1997: 44) suggested that "culture also includes man's [sic] material inventions and accomplishments such as tools, weapons, instruments, etc. Bolos, missiles, atom bombs, cars, etc., are part of man's [sic] culture and form much of his social heritage. These material aspects of culture, called artefacts, tell much about the things
strange, but Filipino people claimed that such a practice was, indeed, functional within the context of their society. Garcia insisted that there were various groups, which could create cultural arrangements that serve their own interests and imposed their own cultural preference on the society as whole. Where a particular group was in a position to dictate the cultural behaviour of others in society, it is referred to in cultural studies as the “dominant culture” (Marshall, 1998: 170). Although culture has been defined as an inheritance, Garcia argued that it “could be modified, or altered,” as it passed on through generations (Garcia, 1994: 48). This could be seen in the everyday life of Filipinos in the ways they acted, responded and influenced one another.

However, how the Filipinos behave and act toward each other is an issue of interpretation, as is behaviour generally. Garcia argued that any single act by an individual could be interpreted differently by people belonging to different groups with manifold cultural backgrounds (Garcia, 1994: 49). Garcia cited an example comparing the “tip” given to waiters for services rendered in restaurants in the Philippines and in Japan: in the Philippines, the tip is received as a compliment, while in Japan it is an expression of dissatisfaction with the service received.

Espiritu et al. (1995: 68) claimed that local values and behaviours, especially in rural areas, were important to the long-term acceptance of development projects. Espiritu et al. argued that the lasting effects of such projects depend on how the technology suits local values and behaviour. In general, they argued that the acceptance by locals of introduced projects depended on their willingness to alter some attitudes and beliefs, the long-term acceptance of projects and programmes depended on considering the effect of such changes on local cultural practices. They further emphasised that in every livelihood or rural development programme the plan should be implemented in accordance with local cultural values. The participants would be more likely to be receptive toward such changes and adopt the introduced change by redirecting their own values. According to Espiritu et al. (1995: 68) the introduced changes should be accompanied by an identification of the existing values in order to examine how these values had positive or negative effects on the participants involved in the projects. Such arguments related to
appropriate cultural values that supported the diffusion model and the 'putting people first' approach in implementing development programmes.

Related to this was the study by Kerkvliet (1990) who examined the conflicting values, behaviours and political practices of people of different class and status positions in a small village in the northern part of the Philippines. Kerkvliet (1990) highlights how cultural values interacted with the social and economic activities in relation to the political practices amongst villagers (Kerkvliet, 1990). Kerkvliet describes:

Underlying the struggles among people in unequal class and status relationships are conflicting claims and values. People in higher classes and status groups frequently justify the wages they pay employees, demands they make of tenants, rules they set for their property, and other behavior toward subordinate people on the basis of ownership and the market system (Kerkvliet, 1990: 199).

Kerkvliet also examines landlord-tenant relationships, citing the case of one of the affluent farmers who worked against his tenants in the 1950s and 1960s. Kerkvliet further examines the strategies of relatives of these farmers working against poor villagers in early 1980s. Kerkvliet's analysis revealed that the landowner “had the right, they argued, to evict tenants or prevent others from becoming tenants because, as owners, they have the final say in how the land should be used and by whom.” The point of view of the affluent farmers was that “they were protecting the essence of private property” (Kerkvliet, 1990: 199). On the side of poor villagers Kerkvliet describes:

To people in subordinate classes and status groups, however, that behavior can be wrong and the justifications less legitimate than their right to subsistence, livelihood, and dignity. One or all of these are typically the basis on which people of lower class or status claim resources and object to what better-off or higher-class people do (Kerkvliet, 1990: 200).

Kerkvliet further explains:

Social standing is important to one's self-esteem, and the poor often perceive that better-off people look down upon them because of their impoverishment. Workers walking off the job after being insulted, peasants evading payments to creditors and government agencies in order to preserve some savings or keep their children in school, poor people bad-mouthing the better-off and trying to take what they think they deserve in order to live better are examples of people asserting and protecting their dignity (Kerkvliet, 1990: 200).
Kerkvliet reveals that “contending values underlie the struggle among people in different classes and status groups, everyday politics is complicated by people on different sides appealing to the same values” (Kerkvliet, 1990: 200-201). Kerkvliet elaborates this:

Wealthy people and capitalists also argue that poor people and those working for them do not show them proper respect and in other ways fail to reciprocate for the help they have extended. Peasants justify the low remuneration they [wealthy people and capitalists] give to transplanter and harvesters working their fields on the basis of their own subsistence and livelihood needs. And like the poor workers, these poor peasants claim a right to a better standard of living. Finally, rich and poor, peasants, workers, and capitalists alike, can defend their actions in terms of their obligations to protect and advance their families (Kerkvliet, 1990: 200).

This analysis provides a holistic perspective on how values of people in different class and status positions work in the everyday activities of villagers. It means that the social and economic networks and the relationships of the rich and poor influence the effectiveness of both the diffusion model and the ‘putting people first’ approach used as tools to implement development programmes in the Philippines. Filipino culture, especially the values and belief of locals played an important role in the transformation of the social and political structure of the country especially rural agriculture growth.

In Summary, Garcia (1994) emphasises the importance of Filipino culture to development from the functionalistic point of view. Thesis related to the arguments of Espiritu et al. (1985) suggesting that the long-term acceptance of development programmes depends on values and attitudes of locals and their ability to adopt social change. This was clarified by Kerkvliet (1990) who provided an empirical account the ways values were practiced by locals of different social class and status. The differences are complicated and crucial to implementation of development programmes.

Therefore, assessment of whose values favoured the ‘top-down’ approach in the diffusion model and whose values supported the ‘putting people first’ grassroots approach, through analysis of the social, cultural and political practices in the three case study barangays, is crucial for evaluation of national policies and local policies in the extension programmes of the College. A brief account of the historical development of Filipino cultural values in the literature will be discussed next before further elaboration of the specific cultural idiosyncrasies and the complications of the two models.
5.3 Historical Development of Cultural Values

It was mentioned in the previous chapter that the Philippine Government continued to exhibit the colonial pattern in the development of its trade and economic growth. This section is a brief description of the forces that shaped contemporary Filipino cultural values. The literature shows Filipinos' values were a blend of oriental and occidental cultures\(^{25}\) (Bautista, 1988: 143-134). It was considered that Filipino social characteristics originated in Aeta, Indonesia, Malay, Hindu, Arabian and Chinese ethnic groups (Bautista, 1988: 143-134 and see also Chandler \textit{et al.}, 1987: 160-170). The Filipino's oriental nature has been the core of their moral, social and cultural identity. The more recent occidental values were inherited from the Spanish colonial rulers between 1564-1898 and, later, the Americans from 1899-1946 (Bautista, 1988: 143-4). A consequence of the imposition of these Western cultures was to attribute a higher social status in individual identity, and a manifestation of symbolic power grounded in an introduced ideology (Chandler \textit{et al.}, 1987: 269-281). This was combined with residual elements of traditional Filipino cultural practice of which nepotism is an example (Panopio \textit{et al.}, 1994: 136; Espiritu \textit{et al.}, 1989: 70).

Panopio \textit{et al.} (1994) maintained that during the Spanish regimes, the patterns of social and political transformation were taken from religion, which benefited men. The Spanish introduced the Roman Catholic religion, which helped perpetuate their political and economic interests in the Philippines.\(^{26}\) Furthermore, Panopio \textit{et al.} (1994: 136) explained that the compadre system introduced by the Spanish government was an oppressive regime which forced Filipinos to render labour for the building of ships of Spaniards and churches for Filipinos. Such exploitation developed a hatred for manual labour in the

\(^{25}\) History has shown that the transformation of Filipino cultural values proceeded from the amalgamation of the traditional way of life and modern Westernised cultural practices and ideologies (Espiritu \textit{et al.}, 1989: 66). Some consider that the values of Filipinos were derived from Spanish colonial orientations by which the principles of Personalism, Nonrationalism and Particularism were introduced and remain (Hunt \textit{et al.}, 1997; Panopio \textit{et al.}, 1994; García, 1994; Espiritu \textit{et al.}, 1995; Espiritu \textit{et al.}, 1989).

\(^{26}\) The Spanish also introduced to the Filipinos the encomienda, galleon trade, fiesta, parochial schools, municipal buildings and village plazas. “Through her [the] Roman Catholic friars, Spain emphasised the spiritual aspects of life in preparation for life after death. This has set the foundation for the contemporary Filipino attitude towards divorce and birth control legislation, [giving more attention to] fiesta and ceremony, gambling [as the front], along with involvement in charitable activities, and the faithful attendance of mass” [strictly imposed] (Panopio \textit{et al.}, 1994: 67).
Filipinos. It was argued that the *compadre* system also brought the notorious practices of nepotism and favouritism (Chandler et al., 1987). Consequently, the residual effect of the *compadre* system is conspicuous in Filipino society even today. Such attitudes manifest themselves in areas such as bureaucracy in which family ties are obvious and sometimes, therefore, vulnerable to actions from officials within or outside the Philippine Government (Panopio et al., 1994: 136).

After the termination of Spanish colonisation in 1899, the Americans occupied the Philippines until 1946 (Bautista, 1988: 143-144). The Americans also introduced their culture, behaviour, values and beliefs. These were learned by the Filipinos and gradually replaced the Spanish customs. The new culture “Americanised” Filipinos and introduced democratic government that remains to this day. Panopio et al. (1994: 67-68) maintain that the Americans popularised education and led Filipinos to believe it was an essential channel for social mobility. The English language was introduced as the medium of instruction at all levels within the school system without attention or regard for the Filipino local language (Panopio et al., 1994: 67-68). Using American textbooks, the Filipinos learned English and were encouraged to desire the United States trade-marked products such as *Levis* jeans, *Adidas* shoes, *Coca-Cola* and other American made products. Panopio et al. (1994: 68) characterise the education system introduced by the Americans to the Philippines in this way:

[The medium of American instruction in the school system] intensified the Filipino’s preference for the academic white-collar occupations and encouraged the use of honorific titles. The English and the diploma system also served to further stratification of Philippines society because the primary beneficiaries of American-sponsored education were the elite. The Americans further infused new ideals pertaining to the family, economy, government, education, religion, and recreation health and welfare. Finally, the Americans also introduced into the Filipino way of life the values of materialism and consumerism (Panopio et al., 1994: 68).

The two colonising nations had introduced enormous technological development and progress to Filipino society (Chandler et al., 1987). However, while there was technological progress there was also cultural domination by the colonisers; the imposition and influence of foreign cultures altered traditional Filipino cultural practice (Chandler et al., 1987; Garcia, 1994). In the last three decades, the Filipinos have been exposed to additional cultural notions and differences through access to the outside world through mass education and media (Panopio et al., 1994: 68).
Further cultural influences have been introduced by education exchange programmes, economic and diplomatic exchange missions, religious pilgrimages and missionary work, socio-economic development programmes, multinational business and the construction of industrial infrastructure facilities (Panopio et al., 1994: 68; see also Chandler et al., 1987: 431-441). Recently, in the late 1980s, there was a demand for contract workers to work overseas. This encouraged many professionals and highly skilled Filipinos to work abroad and some of them gained permanent residence in the countries where they worked (Vasques, 1992). As a consequence of working in other countries, returning or balikbayan Filipinos introduced further cultural changes and the remaining traditional customs and practices were threatened even more, affecting the cultural heritage of their country.

5.4 Cultural Elements that Shapes the Present Filipino Practices

This section discusses elements that shape the present cultural values of Filipinos. As described in the previous section, culture has played a crucial part in the social and political transformation, especially in the modernisation of agricultural technologies. Like other cultures, the Filipinos have their own basic set of values that maintain the core social elements of their country. Panopio et al. (1994: 44) contended that such values indicated that the “social conscience [became] internalized and integrated by the individual members of the society,” claiming that the dominant values could give cultural unity, forms and identity at any particular time. Further, they suggested that an analysis of values could give a picture of how societies change and how values change as society changes.

Such values, then, control the behaviour of individuals within the group and determine issues for such individuals regarding what, who, how, when, why, and where. In other words, the choices available for any individual are constrained by the values of the larger society. Panopio et al. (1994) suggest that an examination of the cultural values of the Filipino could be done through:

...direct observation of human behaviour, conversations with persons, and examinations of indirect evidences like aspirations, achievements, expenditures, aesthetic standards, literary interests, work efficiency rules, ideals of technical skills, public opinion, status symbols, systems of reward and punishment, and other actions (Panopio et al., 1994: 44).
Some of these techniques were utilised to examine local values during fieldwork in the Philippines. However, before turning to an examination of Filipino values, it is necessary to understand the ideological elements that were instrumental in forming the cultural values of the Filipinos. The lessons learned by the Filipinos during the two colonial occupations reshaped their values and led to the ideological perspectives of personalism, nonrationalism and particularism (Hunt et al., 1997; Panopio et al., 1994; Espiritu et al., 1995 and 1989).

Hunt et al. (1997) argued that personalism was significant as a fundamental basis for the warmth and closeness inherent in reciprocal ties within the Filipino family. The affection of the individual Filipino family was transmitted through the principles of loyalty to kin. Kinship obligations encouraged unity and harmonious interpersonal relationships between the immediate and extended families. Hunt et al. contended:

Harmony with nature and with people is more important than mastery. Conflicts are avoided rather than resolved. Loyalty to one's group, unquestioning obedience to authority, resignation in the face of difficulty, reliance on supernatural forces or fate are valued more than self-reliance, autonomy, systematic planning, and scientific experimentation (Hunt et al., 1997: 79).

Within the context of Filipino society, Hunt et al. distinguished personalism as a means of judging performance based on personal social relations between the people involved, rather than their objective performance in economic production. This was a significant finding which illustrates the extent to which Filipino culture has been changed and is still subject to change, further adjusting to the new forms of culture. To elaborate, it could be suggested that the social evaluation of individuals was emphasised the social over the economic or productive evaluation of the individual (see Panopio et. al., 1994: 136).

Hunt et al. (1997: 79) defined particularism as the practice of interacting with a small, select number of people. Individuals of a particular persuasion were loath to participate or interact with members of the wider society. An integral part of this philosophy was the abhorrence of being judged by universal standards. Hunt et al noted nonrationalism means people take everything for granted they do not question things. Nonrationalism denies that all decisions should be based, for example on cause and effect (Hunt et al., 1997: 79).
Kerkvliet's study of how the cultural ideologies of rich and poor operated in San Ricardo reveals how cultural values are related to dependency and inequality. From the poor's perspectives, dependency was fuelled by the principles of *utang na loob*, which means a sense of responsibility to every family and extended family member (Kerkvliet, 1990: 201). Espiritu *et al.* (1989) described the consequence of the values of *utang na loob*:

This value system comprises a network of behaviour with different degrees of connotation - it is a complicated system of mutual obligation. Everybody owes a debt of gratitude to someone; everyone also in some way has done something for someone who therefore owes him [her] in return. ... There are certain *utang na loob* which cannot be repaid in kind and remain outstanding throughout life. To our parents we owe our life so no matter what happens it is *utang na loob* which cannot be repaid. If a man saved the life of another; if someone is responsible for providing a much-needed job; if someone has saved one's reputation from being tarnished; if someone is rescued from a great financial disaster without strings attached these are examples of *utang na loob* which are difficult to repay. In this kind of relationship mutuality may not be present; the burden of obligation falls on the recipient of the favor (Espiritu *et al.*, 1989: 72).

Garcia (1994) described how in Philippines society, *utang na loob* was linked to Filipino cultural behaviour in social institutions. This was particularly relevant to bureaucratic deficiencies in the government. Garcia further acknowledged a link where *utang na loob* was connected to the social stratification and social mobility of the Filipinos. Garcia illustrated this by comparing Filipino culture with American culture:

The American culture is highly individualistic and, therefore, puts a high premium on universalism and achievement. The first one refers to equal rights given to all citizens [Americans] in terms of access to certain opportunities while the second recognizes the inherent ability of every individual to concretize his [her] God-given talents for his [her] own advantage and for others. The Filipino culture, in comparison, emphasizes both ascription and particularism. Filipinos in general are “closely-knitted and group-oriented.” The “tayo-tayo” [particularism] mentality among Filipinos prevails in almost all aspects of their lives including the conduct of their government. Of course, such mentality has certain advantages as well as disadvantages (Garcia, 1994: 217).

The Filipino value of *utang na loob* not only means returning what is owed to others but has also been one way of showing respect to elders or higher authority. However, in most cases, *utang na loob* has been exploited crudely in different levels of institutions in Filipino society. One example is the nepotism and favouritism in Philippine bureaucracy as described by Panopio *et al.* (1994: 136), who indicated that such deficiencies in the Philippine bureaucracy were strengthened by family ties and familism in government
offices and even in private institutions. Related to this, Espiritu et al. (1989) described how *utang na loob* was of considerable significance to politicians:

Politicians usually take advantage of this agreement [*utang na loob*]. Politicians dispense favors and accept or even solicit sponsorship obligations (compadre system) from their constituents [constituents] so that when election time comes they can depend on the support of the families who are obligated to them (Espiritu et al., 1989: 73).

This problem in bureaucracies escalated, it was suggested, because politicians and officials used *utang na loob* as a mechanism to dominate the powerless and poor in order to retain their own position, social status and power in the society. Fundamentally, Hunt *et al.* confirmed:

*Utang na loob* reciprocity is an operating principle in Philippine interpersonal behaviour. ... Every Filipino is expected to possess a deep sense of *utang na loob*, an awareness of his [her] indebtedness to others for favors received, and a willingness to repay them when he [she] is capable of doing so, and when the need arises (Hunt *et al.*, 1997: 84).

*Utang na loob* reflects deep gratitude, thoughtfulness, and appreciation for acts of kindness received, and in turn willingness to be of help when needed. This value, when abused, becomes a burden and a hindrance to freedom of decision. *Utang na loob* can lead to loyalty and commitment to the community in return for a debt that can never be paid. [Further, they mentioned], *utang na loob* is emotionally and operationally more binding that *utang* [debt] (Hunt *et al.*, 1997: 90).

There are various issues relating to how the *utang na loob* could be repaid, what would be repaid to whom, and what the mode of repayment would be. Panopio *et al.* observed that the Filipinos translated *utang na loob* into "internal debt" or literally a "debt of gratitude," (Panopio *et al.*, 1994: 158). Panopio *et al.* wrote:

The repayment has to be acceptable and the quantification is [should be] undefined, so that one cannot be definite as to when the debt is to be fully paid. Payment may be in the form of token gifts or service. Inability to pay results in *hiya* (shame). One who does not pay the debt is considered *walang hiya* (showing no shame, one of the worst labels one can heap on a person). Even children are supposed to have *utang na loob* [reciprocity] for giving them life, education or guidance. They can repay their parents by taking care of them in old age (Panopio *et al.*, 1994: 158).

Panopio *et al.* mentioned that *utang na loob* stabilised the social system in a society such as the Philippines, where the gap between social classes was extreme:

Through the *utang na loob* reciprocity, a poor person is [could be] able to approach a rich one and request a favor, such as borrowing money for medicine, nutrition [of
children] or other necessary expenses. When abused, utang na loob becomes a burden, as it makes a person subservient to the debtor and may hinder his or her freedom of decision as in electing officials in government. Usually, the repayment of utang na loob of a debtor is claimed during election time (Panopio et al., 1994: 158).

There are two parties involved in practising utang na loob in the context of Filipino culture. One is the giver. The other is the taker. There are various levels of this practice in social terms. There are two perspectives. One is from the point of view of the giver. The act of giving prevents or reduces the ability for the giver to advance his family economically. This is based on family interaction and custom. The other is the taker who is also trapped. He owes a debt to the giver but may be unable to pay. Convention demands he returns the favour. He votes for the giver in order to repay the debt. However, there is no distinguishing factor to indicate that the debt has been fully repaid. What is significant is that each member gains and loses in different ways. The taker must be seen to be more disadvantaged than the giver, particularly if political power and economic advantage can be made out of the exchange (see Kerkvliet, 1990).

Within the Philippines society, utang na loob has been a significant Filipino cultural practice. Espiritu et al. (1995: 82) mentioned such practices were inculcated in the Filipinos through the process of socialisation. Therefore, they claimed that the individual's value orientation should be related to his or her parent's child-rearing practices and to his or her social environment. Filipino parents perform a traditional role transferring their cultural practices to children. The cultural practices acquired by children vary according to values prevailing in the local social environment, parents' social status, and the authoritative power imposed within the family. This could be similar to the socialisation of children in other societies, but the degree to which parents perform their traditional role varies even in the Philippines. Garcia (1994: 112) described the traditional roles of Filipino parents in their family this way:

...both father and mother have traditional roles to play. While the former is the "Haligi ng Tahanan" [head of the family] and the breadwinner, the latter is expected to be the "Ilaw ng Tahanan" [domestic and caregiver of the family]. As the "Haligi ng Tahanan," the father becomes the key figure or most authoritarian or most powerful member in the traditional Filipino family. Likewise, as the "Ilaw ng Tahanan," the mother is expected to take good care of her husband and children. If the father is the source of power and the main decision-maker, the mother should provide all the members of the family with warmth and affection (Garcia, 1994: 112).
Garcia (1994: 205) records that traditionally the young Filipinos were initially taught to kiss the hands of the elders and to answer them with *po*, meaning “yes” and *opo*, meaning “yes it is,” as a sign of their respect. However, in recent decades the cultural practice of kissing the hand has declined due to the cultural diversity. The literature shows instead, that young Filipinos prefer to kiss the cheeks of their parents and other older members of the extended family (Garcia, 1994: 205). This example illustrates cultural change and the complexities that young Filipinos face in the new millennium.

Finally, although the Spanish period of colonisation has passed into Philippines history, the cultural domination by Western countries continues to threaten traditional Filipino cultural identity. While it is acknowledged that culture evolves constantly, contact with Western nations has dramatically affected the traditional culture variety. Not only has there been a change in direction, there has been an acceleration in the rate of change. Consequently, many traditional cultural practices have been altered. The literature showed that the economic and technological transformation has also widened the gap between rich and poor in rural areas, and culture played an important part in this issue.

### 5.5 Filipino Cultural Values Crucial to Development Programmes

This section outlines the cultural values of Filipinos that are crucial to rural development. Specifically, it illustrates the way cultural values might influence how the locals, extension staff, faculty and other actors involved from linkage agencies, acted and responded to one another when implementing national policies and solving local problems in Sibalew, Feliciano and Linayasan. This will help to explain the importance of local values to the diffusion model and the ‘putting people first’ approach, which form the basis of the extension programmes of the College.

Espiritu *et al.* (1995: 69-76) suggested that eight national values, especially *utang na loob* were crucial to development projects and needed to be addressed in extension programmes. These values include *paggalang, pagmamay-ari, pakikisama, bahala na, pagwawalang bahala, hiya, machismo* and *pakikipagkapwa-tao* (Espiritu *et al.*, 1995: 69-76). The discussion of these values below will help readers to examine the importance of cultural values and practices of locals in rural areas. Cultural values and practices of
locals are related to the acceptance of authority and issues raised by western thinking on
the traditional values of rural locals (such as labelling values subservience or dependence
on others for getting things done or to access resources and inequality in development)
are particularly important. Examination of these values also helps to spell out the
relevant social and political practices of locals in the three barangays studied in this
thesis, and are crucial to the extension programmes of the College.

1. Paggalang means respect for elders and includes parents, grandparents,
older brothers and sisters, older relatives, teachers, superiors and others.
This is instilled in early childhood to engender a spirit of love and care for
parents and grandparents in their old age. The children taught Paggalang
accept they should work for the honour and prestige of their
family. This
could also mean that children should choose the professions and
occupations that their parents believe would raise the economic and social
status of their family (Espiritu et al., 1995: 69).

According to Espiritu et al. the children feel that they are reared for
materialistic ends. They claim that this has been one of the reasons why
secretiveness, lack of communication and feelings of isolation exist in the
family. Secrecy and lack of communication also exist between brothers and
sisters, because authoritarianism in the family is stratified, such as by age,
gender, economic capacity etc (Espiritu et al., 1995: 70).

2. Paggalang imposes authoritative power through seniority that demands
respect and loyalty to superiors. In the context of Filipino society Espiritu et
al. describe authoritarianism as a form of superior or inferior relations. The
authority figure influences the behaviour of the individual. In social
institutions, for example, Espiritu et al. explain that decisions are made with
the approval of the authority figure. This traditional method provides
security and a sense of satisfaction for the superior in such situations. Since
authoritarianism demands strong obedience, the initiative of subordinates
in decision-making is suppressed. On the other hand, Espiritu et al. contend
positive aspects of paggalang could be found in its social sense. Respect for
elders and each other should be retained, but they must exclude complete subservience to authority (Espiritu et al., 1995: 69-70).

3. *Pagmamay-ari* means property ownership. Espiritu et al. (1995: 71) described this particular Filipino value as the tendency to regard the attainment of possessions as important. Examples are land, homes, cars and food. Consequently, *pagmamay-ari* leads to the individual Filipino consciousness of the social position that he or she attained in society. The value of *pagmamay-ari* and consequent effect of such an attitude on other family members demands loyalty and compels authority figures to please the whole family in any undertaking, economic, social or political. An example of this is the *pagpapahalaga sa pamilya*, close family kinship system, which is a fundamental tenet in Filipino society. Espiritu et al. (1995: 72), explain:

> The family demands loyalty from its members and compels them to please the whole family in any undertaking. The family pervades all spheres of life: socially, politically and economically. Since the family is the basic unit of society, it is a prevalent practice among politicians to gain support, but in so doing they engage in graft and corruption because of their desire to repay the family (Espiritu et al., 1995: 72).

Espiritu et al. (1995: 71) suggest that the value *pagmamay-ari* should not continue to be tolerated as it is a barrier to development and should be modified into a value of "responsible ownership." It could be a positive value when extended to the country as a form of nationalism, producing a feeling of "oneness" with a sense of responsibility to improve and protect it so it is a better place to live in.

4. *Pakikisama* is a concept of good public relations or yielding to the will of the majority or the group leaders. This value has both positive and negative aspects. According to Espiritu et al. (1995: 72), although *pakikisama* broadens the outlook of Filipinos on their society, the *pakikisama* of members is perverted by loyalty to the elite leaders, rather than the common good. *Pakikisama* is a fundamental source of social relationships. Espiritu et al. (1995: 72) assessed *pakikisama* as an inherently good value. However, it
was argued that this value often carried negative practices used to dominate the poor and increase the power of the elite. Further, Espiritu et al. (1995:73) claimed that *pakikisama* should be practised so that when an individual is confronted with a choice between family and non-family, the common good would prevail and positively enhance the social consciousness of the Filipinos.

5. *Bahala na* has two parts. First, the term means, "I don't care;" a "come what may" attitude (Espiritu et al., 1989: 74). The Spaniards called this "indolent Filipino behaviour," which implied laziness and a lack of initiative and ambition (Espiritu et al., 1989: 74). Second, Espiritu et al. (1995: 73) describe *bahala na* as the belief that man is governed by a set of forces beyond his or her control. The implication of this is that the individual's response to given situation is one of resignation: fatalistic thinking. There are, however, variations of fatalistic thinking that may be applied in most situations.

Common examples of this are, depending on the circumstances, *pagtitiis, pasensiya* and *suwerte*. Each form has been used to overcome *bahala na* attitudes. *Pagtitiis* means one accepts his or her station in life without complaining. *Pasensiya* means one must bear his or her failure simply because it has happened. *Suwerte* refers to the success or misfortune that befalls an individual. Espiritu et al., (1995: 73) emphasise that the passive tendencies of *bahala na* obviously lead many Filipinos to leave initiative and action to higher authorities which increases their powers. However, they argue that *bahala na* could reshape the Filipino mind by transforming the high-risk attitude, which is exaggerated by fatalism, into safer, more appropriate attitudes suitable for a modern way of life. Such modernising of cultural values and the consequences should be understood and embraced by Filipino people (Espiritu et al., 1995: 73).

6. *Pagwawalang bahala* is similar to *bahala na* which translates into 'lack of responsibility.' This value is sometimes called the *manana habit* of many
Filipinos, ‘putting off until later what could be done now.’ This value also refers to a lack of self-discipline, particularly in regard to (the passing of) time. An example of this is *nigas kugon*, which means that great enthusiasm is given at the beginning of a project and is sustained at the middle stage, but then there occurs an abrupt loss of interest. This is a phenomenon commonly encountered in rural development projects (Espiritu et al., 1995: 74). The Filipino mentality of *pagwawalang bahala* is ‘negative.’ To offset this attitude, Espiritu *et al.* (1995: 74) suggest that the value of self-discipline should be developed. This emphasises that self-discipline should be given the highest place in the hierarchy of values that are considered relevant to the attainment of individual social development (Espiritu *et al.*, 1995: 74).

7. *Hiya* or ‘shame’ is a social sanction that regulates all aspects of Filipino social behaviour. This value reinforces the obligation to respect parents and elders, to obey their authority, to be loyal to one’s family and repay *utang na loob*. Filipinos who deviate from approved social behaviour are censored by the stigma of shame and are liable to be called “Maheya ka naman” as a means of disciplining the individual to conform to social norms (Espiritu *et al.*, 1995: 74). According to Espiritu *et al.* (1995: 74), *hiya* could encourage the individual to conform to social norms. However, they argue that *hiya* was often abused through using *amor propio*, a Spanish term meaning ‘self-esteem,’ to counter-attack the individual’s deviant behaviour. *Amor propio* is a means of denigrating directly those individual qualities that a person holds dear. It arouses discomfort and involves emotional personal issues. To overcome *hiya* and to use it positively, Espiritu *et al.* suggest:

The potential of *hiya* to regulate the behavior to conformity must be exploited to foster nationalism and to mold an independent individual. Through the mechanism of *hiya*, individual and social behavior could be directed to the observance of higher values and ideas as *palabra de honor* (‘word of honor’). It brings a person to an awareness of responsibility and that touches his [sic] integrity. *Hiya* can also enhance another ideal which is *delicadeza* (‘a sense of propriety’) which can bring to the Filipino the kind of refinement that is the measuring stick of a gentleman or a lady (Espiritu *et al.*, 1995: 75).
8. *Machismo* means ‘masculinity’ or ‘male supremacy.’ This value is considered negative because it revolves around the double standard of morality in the Filipino culture. This value system allows and tolerates the dominant behaviour of men and oppresses the rights of women, and results in male domination in all fields of interest. However, the value *machismo* has been changing in the Filipino culture and women now enjoy greater participation in the labour force and have begun to occupy higher salaried positions in offices. Espiritu *et al.* (1995: 75) report research findings that show in times of crisis employers tended to terminate the services of women first. Further, Espiritu *et al.* argue that despite the new status of women in the Philippines, their traditional roles as homemakers and mothers are never neglected. This expansion of the role of women is presented as providing more active participation in social, economic and cultural development.

9. *Pakisipagkapwa-tao* is ‘concern for others.’ This value is steeped in a basic sense of justice and equality to others. It illustrates the empathetic ability of Filipinos to extend helpfulness and generosity to others in times of need, examples being the advent of typhoons, earthquakes or other natural disasters or lesser personal incidents or tragedies (Espiritu *et al.*, 1995: 76). However, according to Espiritu *et al.* (1995: 76) *pakikipagkapwa-tao* may lead to extreme personalism to obtain the desired social acceptance (other-direct personality). This is manifest in an unwillingness to confront others or sacrifice one’s resources at the expense of one’s family and, by extension, the national welfare. Espiritu *et al.* warn that the *pakikipagkapwa-tao* may be used by some to exploit others.

These are only some of many Filipino values which historically are an amalgam of cultural and social practices. There may be other examples that influence Filipino culture and ways of life more significantly but are less conspicuous and may easily be taken for granted, overlooked or ignored. Some values are overlooked or even ignored just to avoid conflict amongst those in different class and status positions (Kerkvliet, 1990: 276). Culture is dynamic, not static, and is constantly changed by human actions in
response to current circumstances (Hunt et al., 1997; Espiritu et al., 1995 and 1989; Garcia, 1994; Panopio et al., 1994). Perhaps an accurate definition of Filipino culture is not possible because of this.

An assessment of those values outlined above by Espiritu et al. (1995) shows they have common characteristics interrelated with the ideologies of personalism, nonrationalism and particularism described by Hunt et al. (1997) and Panopio et al. (1994). Hunt et al. (1997) suggest that the three ideologies can operate to either hinder or enhance the success of development programmes. These ideological elements exist at all levels of the social system. For example, the habitual practice of utang na loob could influence networks between rich and poor for social and economic progress (Kerkvliet, 1990: 276 and see also Hutchison, 1999; Gerders and Pehrson, 1998; Chua, 1990).

The literature on the diffusion model suggests that those farmers who have values of resourcefulness, leadership, charisma and other positive values with potential for development are often selected to be recipients development agencies to ensure the success of the programmes introduced (see Rogers, 1983; Rogers and Shoemaker, 1971). The interactions of these farmers with well-resourced farmers are crucial to the social and political practices of locals in the implementation of development programmes. The literature shows that the more affluent farmers have positive values for economic development as indicated in the diffusion model (see Rogers, 1983). These farmers are more influential than the less affluent farmers in the decision-making process involved in the implementation of programmes.

The less affluent farmers must be trained first to improve their awareness of the importance of their participation in decision-making, which is what the ‘putting people first’ approach is more concerned about. Assessing the eight values described by Espiritu et al. (1995) in more affluent and less affluent farmers in Sibalew, Feliciano and Linayasan is crucial for examining how the theories and procedures of the diffusion model and the ‘putting people first’ approach were implemented by the College in their extension programmes. Kerkvliet’s (1990) study will help in the assessment of the cultural values of these two groups of farmers. He illustrates how the values of rich and poor had interacted with social, economic and political practices. Kerkvliet notes that the
values of the rich could be described as capitalistic, concerned with profits and accumulating wealth to maintain higher social status and prestige. In contrast the poor drew on religious ideologies, idioms and traditional cultural beliefs to assess their situation or make their own conclusions (Kerkvliet, 1990: 272):

For instance, in discussions about how inequitably land is distributed, landless people sometimes say that God made land, like air and water, for everyone to use, not just a few. Some villagers reinforce their idea of social and political equality by saying that everyone is equal in the eyes of the Lord, and so they should be in the eyes of others. Some in private ridicule those among the rich who give the appearance of being devout Christians but in practice mistreat and exploit fellow human beings (Kerkvliet, 1990: 272).

Differences in values were important in the decision-making processes of local farmers, but were not acknowledged by the diffusion model. Instead, the model insisted that the adoption of new technologies was based on the resourcefulness of progressive farmers. Similarly, Kerkvliet illustrates the overlapping of cultural values with the activities of people who differed in class and status. This challenges the users and actors of the 'putting people first' approach, including the extension staff and college faculty to work hard in order to promote a real practice of participation for disadvantaged to empower them in the implementation of the extension programmes. Assessment of the implications of different values on development programmes is necessary because according to Kerkvliet:

Scholars have devoted considerable attention to a few Tagalog terms, particularly pakikiisama (getting along, consisting to do as others want), hiya (shame, embarrassment, sense of propriety), and utang-na-loob (debt of gratitude). In so doing, the image conveyed, perhaps inadvertently, is that Filipinos are essentially docile, deferential, accommodating people - an impression that has been reinforced by depictions of them as being submissive to authority (Kerkvliet, 1990: 272).

Kerkvliet argues that more attention should be given to the radical implications of other values which are crucial for achieving successful development programmes. These are (1) karapatan (rights) (2) pantay-pantay (equality) (3) karangalan and pagkatao (dignity) (4) makatao (humanness) (5) katarungan (justice) (4) kalayaan (freedom) (6) kapwa (the unity of self with others), and (7) pakikipagkapwa (treating others as equals, as you would yourself, as human beings) (Kerkvliet, 1990: 273). The national programme emphasising Values Education was initiated to address these cultural values
which supported development, but still more work needs to be done before such values could be realised to reduce social inequality (Hunt et al., 1997; Panopio et al., 1994; Garcia, 1994).

The literature on development suggests that participatory development could help to effectively deal with cultural issues. 'Putting people first' was optimistic about addressing this issue (see Scoones and Thompson, 1994; Chambers, 1997; Cernea, 1991). It emphasised the importance of the learning process in which the locals and other actors were involved. The literature suggests that everyone, especially the policy makers, planners, researchers and other actors involved in development should learn about their values, behaviours, attitudes and interests in order to reduce the adverse effects of development programmes on the local social structure (Michener, 1998; Chambers, 1997; Pretty, 1995; Thompson, 1995; Merrill-Sand and Collion, 1994; Cohen and Uphoff, 1980). Through this approach it would be expected that problems concerned with social and political issues could be reduced because of the participation of locals in all stages of the development process (Kottak, 1991 and see also Cernea, 1991). Such an approach needs the continuous efforts of the individual actors, including the staff of development institutions and their linkage agencies (Michener, 1998; Thompson, 1995 and see also Scoones and Thompson, 1994). Making an appropriate amount of time available and having consideration of the imbalance of power between the actors involved, the culture of development institutions and rigid bureaucratic procedures were critical issues challenging the 'putting people first' approach (Scoones and Thompson, 1994). In contrast, the diffusion model was appropriate for short-term processes such as to make a project proposal for securing the funds required to implement projects in rural areas (see Gardner and Lewis, 1996; Gabriel, 1991; Webster, 1990). However, the literature emphasised that this model has many shortcomings, which needed be taken into consideration when making plans and in the implementation of development programmes in the field.

In summary, the role of the cultural values of Filipinos is crucial to their development programmes. It is also important in the application of the diffusion model and the 'putting people first' approach in the extension programmes of the College. The literature indicated that cultural values influenced the practices of locals and the effectiveness of
the actors involved in the development programmes. The eight Filipino cultural values outlined by Espiritu et al. (1995) have help us to evaluate issues and complex problems in the implementation of extension programmes in Sibalew, Feliciano and Linayasan. However, the arguments of Espiritu et al. addressing those cultural values was along the line of the modernisation of the traditional cultural practices of locals for the long-term acceptance of national development programmes of the government. This is opposite to the concepts behind the 'putting people first' approach in which the interactions of traditional cultural values of locals with values of extension workers and researchers are crucial in development processes. Kerkvliet (1990) provides an alternative point of view to Espiritu et al. (1995). Cultural values are complicated human elements that enhance or hinder development. This thesis attempted to address this issue to evaluate the effects of development on changes of social and economic conditions in the case study barangays.

5.6 Conclusion

The ways Filipino cultural values and practices might have affected the outcomes of development projects were examined in this chapter. It focused on the role culture has played in the transformation of the social and political structure, an aspect which is crucial to the evaluation of the extension programmes of the College implemented in Sibalew, Feliciano and Linayasan. In the previous chapter, the literature showed the transformation of Filipino cultural values during the Spanish and American colonial periods. Colonisers, especially the Americans, influenced the current cultural values of Filipinos which are based on a mixture of oriental and occidental cultures.

History shows that the transformation of social and cultural practices of Filipinos was based on the introduction of the Roman Catholic religion and American education systems on top of the social and political structure of the Philippines. The process that accompanied this transformation included the expansion of capitalism, industrialisation, commercialisation and the establishment of international trade relations for national economic growth. However, many studies have revealed that economic transformation favoured the political elite and business groups and as a result, increased social inequality. This issue was related to the complexity of the cultural ideologies. Changes in the social structure, especially in rural areas, require a reshaping of old values, customs,
beliefs and cultural ideologies in conjunction with the practical development of projects based on local participation.

The basic idea argued in the diffusion model was that the introduction of modern technologies and infrastructural development would lead to an improved standard of living and a modern lifestyle for all Filipinos through targeting progressive farmers to trickle down development in rural areas. This model neglected the way the social and cultural practices of locals were operating in the social structure. The concept of the 'putting people first' was critical of the College's authority and the way the College's accountability to the funders contradicted the cultural practices of locals. As shown in the literature there were cultural values which influenced social and economic activities. These in turn were directly connected to the bureaucracies, which were responsible for people's access to public programmes and services. The following authors give different perspectives on the way cultural values of Filipinos can influence the implementation of development programmes in rural barangays.

First, Hunt et al. (1997) emphasised the importance of the cultural ideologies of personalism, nonrationalism and particularism that shaped the cultural values of Filipinos which have become more complex in the present. Second, Panopio et al. (1994) maintain the significance of values in Filipino culture that have ultimate ends and goals or purposes of social action. Panopio et al. stressed that at present there are conflicting values in the way Filipinos interact. Third, Garcia (1994) stresses how the way Filipino culture has played a role in individual development is interrelated. And finally, Espiritu et al. (1995) suggest the integration of Values Education in all aspects of development is considered a crucial element in ensuring long-term acceptance of locals in development programmes. But there were other factors to be considered before development programmes could be successful.

The literature showed that political patronage and kinship ties and patrimonial largesse are critical factors in development programmes. These factors maintained the social relationships of locals and actors involved through the use of utang na loob or reciprocity. This relationship embraced nepotism and favouritism, are examples of political and institutional issues associated with the implementation of development programmes. An imbalance of power and the biased distribution of development were
often stated in the literature as the central arguments or rationales, over and above the negative effects of cultural issues. Specifically, values and practices such as nepotism, favouritism and reciprocity affected the implementation of national development programmes.

Espiritu et al. (1995) identified eight values essential to development. These included paggalang, pagmamay-ari, pakikisama, bahala na, pagwawalan bahala, hiya, machismo and pakikipagkapwa-tao. Regardless of whatever developmental approaches were used the importance of these values discussed by Espiritu et al. was to illustrate the conflicting issues of authority, culture, politics and bureaucracies. For example the western theory implicit in the diffusion model ignored people who lacked resources and fatalistic or appeared to have negative thinking. It was the disadvantaged locals who were made vulnerable as a result. Further, the nepotism and political patronage described in the literature were additional crucial factors increasing social inequality.

Development that focuses mainly on modern technologies also sometimes contradicted traditional values such as reciprocity, security of kinship and friendship when recipient tried getting access to public sector assistance and services (Espiritu et al., 1995; Panopio et al., 1994). One traditional value was to ignore conflict in decision-making processes. The literature indicated that often decisions made were that usually conformed to the existing hierarchy in the social and political structure. It means that the Filipino values can either enhance or hinder development. Kerkvliet (1990) suggested that existing Filipino values that support human rights such as equality, dignity, humanness, justice, freedom and the unity of self with others as human beings should be practiced to minimise inequality in development programmes. Kerkvliet emphasised that the values such as reciprocity and inequality that operate between rich and poor must be addressed in development programmes.

In conclusion, the Filipinos have common values, but these values were perceived when accountability in implementation of national policies and implementing local participation in extension programmes was demanded. The cultural values examined in this section have implications for both the diffusion model and the 'putting people first' approach in relation to the results of extension programmes in the case study barangays. An analysis revealed that the discussion of eight national values by Espiritu et al.
supported the theories of the diffusion model and favoured the values of the progressive farmers. The optimistic ideas of the diffusion model that claimed that the modernisation of technologies would lead to a better standard of living for all implied taking on Western values and ideologies which were better suited to elite and business groups. On the other hand, to the proponents of the 'putting people first' approach, the social, cultural and political practices of locals were crucial for the success of development programmes. The literature on participatory development emphasises that researchers and implementers of development programmes should adjust to the cultural practices of locals. It is important to recognise previous mistakes and incorporate the improvement of strategies and approaches into new development trials, being concerned about values that led to unequal access to participation in the decision-making processes.
Chapter Six

Concluding Statements: Towards the Case Studies

The research questions used to examine rural transformation and the adoption of agroforestry innovation in three barangays in the Philippines were outlined in Chapter One. This thesis will attempt to examine two main subject areas. The thesis first examines how technologies introduced through demonstration farms changed the social structure and rural living conditions in the Sibalew, Feliciano and Linayasan barangays. Second, it evaluates the extension methods of the Aklan State College of Agriculture that were used to introduce the demonstration farm and identifies key elements crucial to the improvement of their extension programmes.

The arguments of the thesis focus on the increase in inequality through development which has prevented closing the gaps between the rich and the poor in rural areas. Further, the thesis argues that the technology and economy-driven extension methods used by the Aklan State College of Agriculture to promote the demonstration farms draw on the diffusion model, as opposed to the ‘putting people first’ approach which also has been used by the College for over fifteen years in their extension programmes. The lists of questions outlined in the first chapter of this thesis seek to explore the significance of the diffusion model and the ‘putting people first’ approach from the Aklan State College of Agriculture’s experiences in their extension programme in the three barangays.

The literature showed that the diffusion model was developed in the United States in the 1920s. After World War II this model was introduced in Third World counties, including the Philippines. The diffusion model was taught as the basic extension method to improve farming methods in agricultural schools. This model focused on the introduction of cost-intensive farming methods which favoured progressive farmers in the Philippines. As a consequence social inequality widened, which the literature showed has been a major issue with this model. The model is more concerned with adoption of modern technologies and economic factors, while social and cultural factors are not given critical attention in decision-making processes.

The ‘putting people first’ approach was another approach examined which shows various tools and potentials for development. It has appealing attributes for dealing with local
problems. Spreading of participation and empowering locals in all stages of development programmes were the main concepts of this approach. This was conceived in the 1980s based on experiences from the failure of development in Third World countries in the last three decades. Like the diffusion model, the literature shows the ‘putting people first’ approach is complicated to implement for many reasons discussed in Chapter Three. In particular these two approaches differ in dealing with problems and felt needs of locals, and such issues as the social, cultural, political and institutional factors of development programmes. Implementation issues have implications for the changes of social structure and rural lifestyle essential to evaluations of extension programmes of the College.

The literature review showed that the diffusion model and the ‘putting people first’ approach have different attributes and potential for social change. Both models differ in terms of their procedures and perspectives on local problems and assumptions on improving rural agricultural economies for a better standard of living for the locals. However, using either of these two approaches is more than just a selection of tools to promote successful extension programmes. Interactions among social, cultural and political factors with other factors such as bureaucracies and culture of institutions are crucial to the diffusion model and the ‘putting people first’ approach. These two approaches have been used in the research and extension programmes of the College. Many issues concerning these two approaches are left unsolved and needed further evaluations in different local conditions. In particular how these two models operated to deal with complex national policies and local problems is essential to examining issues about inequality in development and its implication for the extension programmes of the College in the three barangays.

The ‘top-down’ process of the diffusion model has been criticised for not being able to close gaps between the rich and poor. Critics of the diffusion model argued the effects of modern technologies widened social inequality. The Green Revolution in the 1960s was a classical example of this problem. The literature showed that before the Green Revolution the Filipino way of life in rural areas had always been based on self-help and subsistence farming methods. This was replaced by the capital-intensive scientific farming methods introduced through the Green Revolution. Imported technologies produced in foreign counties, as well as in local factories, were promoted. Masagana 99,
aimed to improve rice production, was an example of the national programmes and political initiatives during that period.

Modern technologies dramatically improved agricultural production and also had some consequences in the countryside, especially adverse changes to the rural social structure and natural environment. The literature showed the effects of the Green Revolution provided advantages to rich farmers, but failed to address the issues facing the poor farmers. Unemployment and economic pressure in rural areas continues to grow. Increasing economic pressure has been brought about partly through the demographic changes that have occurred and the unstable political structure. Adverse effects of the changes added to social, cultural, political and institutional problems in development.

Despite failures in development in the past three decades in the Philippines, the western theories of the diffusion model remain attractive to the policy makers, planners, politicians and bureaucrats who were the influential actors in the decision-making process for designing and finding finances for development programmes. It centralised the powers within the higher authorities who made decisions and controlled administrative tasks and had accountability for implementing the national policies and local programmes. As mentioned earlier, the persistence of poverty, social inequality and political uncertainties challenged agricultural institutions, especially the College to find another approach more suitable for addressing inequality because the diffusion model had not reduced this.

In the 1980s, the ‘putting people first’ approach was initiated, designed to transform the ‘top-down’ process into a grassroots participatory development approach. This approach provides flexible tools and strategies for obtaining a deep understanding of the social and cultural behaviour of local people. With this approach they are not supposed to be passive recipients of development programmes. Earlier it was mentioned that this model is more concerned about the human aspect of development, especially that values, behaviours and interests of locals and other actors involved influence outcomes of development programmes. The ‘putting people first’ approach is also concerned to promote spreading of participation and empowerment of disadvantaged locals throughout the stages of a project cycle.
A review of historical information about the Philippines showed that the country has undergone different stages of transformation shaped by the social and political structure, which has influenced the implementation of the two approaches. As well as colonialism, the Philippines had experienced Martial law in 1972, which ignored or controlled participation of locals in development processes and the People Power Revolution in 1986, which dismantled the twenty-five years of dictatorial government and allowed for social change. Following such events there was restructuring of national policies and programmes for solving local problems, especially inequality in development in rural areas. However, it was apparent in the literature that there were ambiguities about how participation has been used to implement national programmes in local level.

For example, the ‘top-down’ approach in the Masagana 99 was promoted in the early 1970s. The combination of ‘top-down’ and ‘bottom-up’ approaches of the Integrated Rural Development Scheme, which focused on bringing together various programmes in one area to develop model projects, was introduced in the 1980s. Another example was the Countryside Agricultural Development Project in the 1980s. This promoted community-based projects and encouraged participation and empowerment of locals, especially those disadvantaged in the decision-making processes. The Comprehensive Agrarian Reform in the mid-1980s was another example of a national programme concerned with issues about inequality of land distribution. Unequal distribution of land has been an enduring issue which has hindered rural development in the Philippines. Finally, the most recent national programmes were the implementation of the Local Government Code in the early 1990s and recently, the Modernisation of the Agriculture and Fishery Industries Act. The former programme was about the devolution of powers from national to local level, and encouraged participation and empowerment of elected local officials to initiate and implement development for their own barangays.

In spite of these national programmes mentioned above, which were all important to the development of rural economies, it was apparent in the literature that implementation issues, especially adopting participatory approaches, were surrounded with complex cultural, political and institutional factors (Blackburn, 1998; Michener, 1998; Thompson, 1995; Uphoff, 1991; Cohen and Uphoff, 1980). There were arguments about the complications of national programmes and policies because of interaction between these policies and practices of locals. The development institutions often used ‘top-down’
processes which ignored the locals, preventing them from voicing their concerns in decision-making processes. There were arguments that the benefits from these national development programmes went mostly to affluent families that already had capital for farming. The selection of farmers for the projects was another controversial issue which widened the gaps between the rich and poor.

Overall, these issues were interrelated with the inequality and history of development of the country examined in the literature. Poor economic policies and political instability were the major issues affecting economic growth of the country. Such problems showed that the capacity of the agricultural sector and rural economy to absorb labour was limited. Further, the literature indicated that weak agricultural productivity and inadequate rural infrastructure were attributed to the poor economic policies. The brain drain was also a critical problem which decreased the expertise of the country. Added to these problems were overpopulation and continuous devaluation of the peso which made the present standard living conditions of Filipinos more complicated.

The literature showed successive political leaders and their major rural development programmes also changed the way local programmes were implemented. There was restructuring of national policies and devolution of power from the national to local public sector to promote participation of locals in development (Blair, 1997; Nolledo, 1996). The literature showed the rigid bureaucratic procedures of centralised planning could encourage dependency on the development institution even though the programmes were unrealistic (Gaventa, 1998; Uphoff, 1991). This would lead to 'top-down' processes, which could lead astray ideas and practices of participation in implementation of programmes (Blackburn, 1998). There were arguments about unequal power between locals, extension workers and other actors involved in the decision-making process, affecting the patterns of participation in implementation of programmes (Cornwall et al., 1994).

The devolution of power and decentralisation of policies and development programmes developed institutional alliances between barangays, development institutions and linkage agencies which could influence policies on participation and implementation of development programmes. The literature indicates the Local Government Code was an initial step towards supporting participatory development, but evaluations of the
literature on participatory development showed that the close collaboration of local officials with development institutions often led to the bureaucratisation and standardisation of policies and procedures (Nolledo, 1996). Examples of this were the recent programmes mentioned earlier about comprehensive agrarian reform and the modernisation policies of agriculture and fisheries industries. These national policies were often not consistent with addressing local problems directly. The culture of institutions could manoeuvre participatory approaches in research and extension activities which had been newly adopted back into the ‘top-down’ processes that the diffusion model supported.

Culture has played a role in the effectiveness of the diffusion model and ‘putting people first’ approach. Policy makers and higher authorities could use either of these two approaches to define national problems. In real situations, however, because of the complications of Filipino culture, blended with oriental and occidental cultures which make the local values and practices more diverse and fragmented, standard policies are difficult to implement in the local conditions. Interaction of culture with other factors links power relations with social and economic networks. Culture also links kinship ties and political patronage. Such relationships are attached to personal interest and political ulterior motives that have been criticised as critical issues.

The history of development in the Philippines indicated that the failure of the diffusion model in the past three decades added complex problems and created intergenerational issues associated with development programmes. This led to an increase in complex problems which hindered the spread of participation of locals in the development process. How all these complex factors mentioned affect the extension programmes of the College and its relationship with locals in Sibalew, Feliciano and Linayasan, as well as the linkage agencies, has not been clearly evaluated yet, but will be examined by this thesis.

Participatory Rural Appraisal was reviewed and used as a tool to direct the fieldwork to explore complex social, cultural, economic, political and technological factors with institutional and intergenerational issues about inequality in development programmes. Analyses of reviews showed that Participatory Rural Appraisal was one of the potential tools to evaluate development projects. Many authors warned that careful analysis of who
are the participants in this research, how they participated, who benefited from participation, for whom and what the participants are after are all critical questions which needed deep analyses to achieve authentic results from fieldwork when using a Participatory Rural Appraisal (Blackburn and Holland, 1998; Holland and Blackburn, 1998; Chambers, 1997, 1994a, 1994b and 1994c; Scoones and Thompson, 1994).

Issues about Participatory Rural Appraisals regarding complexities of social, economic, cultural, political and institutional factors with technological factors and issues about inequality were examined in the literature before fieldwork (Thompson, 1998; Michener, 1998; Cohen and Uphoff, 1980). The familiarity of Filipino culture and extension programmes studied by the researcher as an ‘insider’ and an ‘outsider’ helped facilitate fieldwork. The researcher could view factors from the perspectives of locals of Sibalew, Feliciano and Linayasan and the College. Despite access to these three barangays there were social, cultural and political practices interrupting fieldwork activities. The bureaucratic processes and cultural practices which surfaced were the most challenging issues encountered during group discussions and interviews.

There were unforeseen events which disrupted the fieldwork. The death of the barangay captain of Sibalew and the national elections were the most stressful and symbolic events during the fieldwork. However, the unforeseen events have provided insights that helped analysis of the issues and complex problems discussed in the case studies. It was reconfirmed that the power relations between the participants were the most critical issue during group discussions and interviews. Institutional alliances, political patronages and bureaucracies were also critical issues. Distribution of assistance was crucial to the local officials whose administrative task is the development of their barangays. Inequality in development was found in succeeding generations in the three case study barangays.

The literature indicated that the individuals’ values, behaviours and attitudes often influenced their social and economic activities in their own interests Chambers, 1997; Scoones and Thompson, 1994). This often contradicted the development of the barangay as a whole. People of different class and status had different perceptions of what could be achieved from development programmes. The cultural ideologies of personalism, nonrationalism and particularism were also crucial in increasing inequality (Hunt et al., 1997; Panopio et al., 1994). This has some implications for the application of the
diffusion model and 'putting people first' approach, as well as problems of biased development. Cultural values of *paggalang* meaning respect for elders, *pakikisama* which is a concept of good public relations and *pakikipagkapwa-tao* which means 'concern for others,' for example when abused could be used to manoeuvre various issues which could lead to an increase in inequality in development. *Utang na loob* in kinship relations and friendship were described in the literature as crucial issues that could lead to nepotism, favouritism and political patronage for those seeking public assistance and services (Hunt *et al.*, 1997, Espiritu *et al.*, 1995, Garcia, 1994). In order to overcome inequality, Kerkvliet (1990) suggested that traditional cultural values and behaviours supporting equality, dignity, justice, freedom and the unity of self with others, treating others as equal human beings, needed to be practised.

How the diffusion model and 'putting people first' approach could be used to address such suggestions, especially the participation and empowerment of locals through the decision-making, involved a complex process. There were many unsolved issues about the applications of these of two approaches which needed critical analyses to deal with the complex problems of the locals. These issues included the leadership style of local officials; gender issues particularly access to and control of resources; unequal powers regarding which groups had access to introduced development assistance in rural areas; and more certainty that the methods used would effectively address the real needs of disadvantaged locals. There were also problems with the results of the introduced agricultural technologies. Further, the literature shows that the development programmes often not only provided more economic advantage to the rich, but they also created further disadvantage for the poor farmers. There were also studies that indicated the social, economic, cultural and political uncertainties that developed, interfered with the introduction of new technologies for the intended project beneficiaries. There was concern in the literature over culture of institutions and bureaucratic procedures that interfered with participatory development in dealing with local problems (Thompson, 1998; Michener, 1998). An increased social and economic gap between rich and poor prevented development programmes from being successful. Lack of linkage mechanisms between extension, researcher and instruction was another issue.

In conclusion, there were many complex problems in the literature that needed greater clarification. For example, how the diffusion model and the 'putting people first'
approach could be combined in the implementation of national programmes in solving problems on inequality. How these two approaches operated under the context of Filipino culture was not yet clear in the literature. Therefore, in order to narrow down those issues described above, this thesis focuses on five major issues that lead to increased inequality and thus hinder the process of closing the gaps between the rich and the poor in rural barangays. The first issue concerns the existence of bias in national development programmes. This makes solving the local problems directly unrealistic. The second issue concerns the social, cultural and political practices of Filipinos that influenced unequal access to benefits from the development programmes. The third issue pertains to the adverse effects development had on the social structure. The fourth issue concerns the consequences of economic and technological change brought about in the traditional cultural practices of locals and the natural environment. Finally, in concert with the central argument of this thesis, the fifth issue is why the diffusion model remained dominant for over fifteen years over the ‘putting people first’ approach in the College’s extension programmes. These issues will be linked to the conclusions of the case studies and final conclusion of this thesis.
PART TWO
Map 2. Location of the Case Studies in Aklan Province.
Chapter Seven

The Introduction of Agricultural Technology and the Sociocultural Transformation of the Rural Lifestyles: A Case Study in Sibalew

7.1 Introduction to the Case study in Sibalew

The Sibalew case study focuses on the transfer of agricultural technology and the consequences of economic development on local sociocultural practices from 1983 to 1998. Sibalew had been the recipient of various integrated programmes and resources from external agencies through the auspices of the ASCA during this period. A review of previous studies and reports indicated that Sibalew was transformed from a poor and isolated barangay, to being one of the most progressive rural farming barangays in the region (Aguilar, 1994 and 1990; Agustin, 1990; Quintana, 1989).

Agustin (1990) revealed that Sibalew was the most highly sustainable in the adoption of new agricultural technologies of the six rural barangays where the ASCA had introduced the Agricultural Education Outreach Project (AEOP) in the 1980s. Quintana (1989) also noted that the AEOP had achieved its objectives in Sibalew. The expected outcomes of the assistance packages extended to farmer-beneficiaries were realised. There were reports that suggested the integration of programmes and resources from external agencies brought significant economic development to Sibalew (Aguilar, 1994, 1990, 1989a and 1989b). In the course of this assistance, close alliances developed amongst project actors and there was a successful transfer of “social and scientific knowledge to the barangay people” (Aguilar, 1989a: 5 and 1989b: 5).

Fifteen years of administration of the integration of disparate but complementary programmes by the College dramatically changed rural lifestyle in Sibalew. However, there was no research to examine the efficacy of the transfer of agricultural technology and the consequent economic development, and its effects, on the Sibalew people’s rural lifestyles. The introduction of new agricultural technologies in Sibalew involved a change in the sociocultural practices of locals. Robertson (1989: 425) suggests that social change involves alterations to local traditional cultural practices and integration of new social behaviours. Specifically, Robertson claims that social change is: “[t]he alteration in patterns of culture, social structure, and social behaviour over time” (Robertson, 1989: 425). However, while social change brought many benefits to the locals, the effect of the change in Sibalew was controversial. These issues will be discussed in the following chapters.
7.2 Objectives of the Sibalew Case Study

The main objective of this study is to examine the introduction of agricultural technology and the sociocultural transformation that resulted in Sibalew. The purpose is to study the changes in rural cultural practices from 1983, when the ASCA began to promote new farming methods in Sibalew, until 1998, the period when the fieldwork of this case study was done. The transfer of agricultural technology and consequent economic development and its effect on Sibalew rural lifestyles are the major subjects of discussion. In order to undertake this objective, the case study is divided into five major areas of investigation. These areas are outlined in the next section.

7.3 Overview of the Case Study

Chapter Seven is an introduction to the barangay of Sibalew where the researcher conducted this study. This chapter presents the main objectives of the case study that have been described above. This overview provides information on the structure of the Sibalew Case Study as presented in this work. The geographic location of Sibalew is described and the fieldwork involved is discussed.

Chapter Eight provides information on the recent history of Sibalew. The objective of this chapter is to describe the situation that existed in Sibalew before 1983. This chapter contains three areas of discussion: the situation before and after the development projects were established in Sibalew; the current situation and the associated issues in development; and the local leadership and social capital in Sibalew. This description is necessary to compare the changes to rural lifestyles brought about by technological progress and economic development. Sibalew was considered one of the most depressed rural barangays before the arrival of the College who introduced the outreach education projects in 1983.

Chapter Nine examines the development of the demonstration farms in Sibalew. This chapter contains five areas of discussion, and begins with a brief description of the three types of agricultural education programmes promoted by the College to establish the demonstration farms. A review follows of the previous studies and reports regarding the AEOP introduced in the College. An explanation of the AEOP strategy for rural
development is next. The involvement of the Foundation for Youth Development in the Philippines (FYDP) in the development of Sibalew is discussed. Finally, the setting of the Diploma and the Bachelor in Agricultural Technology based in Sibalew is discussed.

Chapter Ten examines the various interventions associated with the three agricultural education programmes promoted by the College in Sibalew. There are two main areas of discussion. First, the linkage agencies and their involvement in the development of Sibalew are described, emphasising the interrelationship that existed between linkage agencies, the College and Sibalew officials and locals. Second, the introduced livelihood projects and utilities established in this barangay are examined. Six examples of the livelihood projects that were introduced and four major utilities established and their impact in this barangay are analysed.

Chapter Eleven examines the sociocultural transformation in Sibalew as a result of the recent economic development. The discussion is organised into four areas: the concepts behind the transformation in Sibalew; the consequences of technology-transfer on local sociocultural practices; the change in local sociocultural behaviour associated with the economic development, and finally the economic improvement and sociocultural resistance of locals to change.

Chapter Twelve is the summary and conclusion of the case study in Sibalew. This chapter discusses and illustrates the significance of the transformation that occurred in Sibalew and draws attention to the crucial issues that need to be considered when adapting technology to traditional social conditions like those prevailing in the Philippines.

7.4 Location of Sibalew and the Fieldwork

Sibalew is one of thirty barangays in the Municipality of Banga, in the province of Aklan, Panay Island in the Philippines. Sibalew is located fourteen kilometres south of the town of Banga. From the ASCA in Banga, Sibalew is reached by following the main road for twelve kilometres to barangay Torralba. At Torralba, a left turn is made toward Libacao, the adjoining municipality. From Torralba, an arterial road to Sibalew for a distance of two kilometres connects with the main road. This road travels through rugged
terrain to reach the barangay. Sibalew is located in an elevated area with rolling hills, valleys and small plains surrounding it. Sibalew has an abundance of plants and trees that increase the humidity because of the water vapour produced by the plants. Moreover, the humidity that prevails throughout the year provides locals with the opportunity to engage in orchard plantation production. Under the Philippine weather conditions criteria, Sibalew belongs to Type III. Type III conditions generally mean that from February to April there is a dry period while the remaining period of the year is wet.

Sibalew has a total land area of 310 hectares. As of 1997, Sibalew official records show a total population of 1,008 people in 183 households sparsely scattered in the barangay. An average of 1.70 hectares per household was the normal amount of land available. The population density was set at about 3.25 people per hectare. The religion of the majority of the locals was Roman Catholicism. Most people were related to each other and there was an average of five people per household.

A previous report showed that in 1997 the Sibalew family average annual income was far below the 1994 National Average Family Income of PhP83,161.00 ($US3148.84)\(^\text{27}\) (cited in ASCA, 1997b: 15). However, because of the low cost of living in rural areas, Sibalew people did not suffer economic deprivation when compared to other barangays or to poor urban residents.

In the late 1990s, Sibalew had electricity, an access road and a water system that were not available in many other rural areas. These systems provided convenience for Sibalew locals and they were fortunate that their remote barangay had such facilities. Like other barangays, Sangguniang Barangay or the Barangay Council ran the barangay. The Sangguniang Barangay was composed of seven members under the direction of the elected Barangay Captain. His was a crucial role with considerable political power and with a leadership style that favoured the development of the barangay and the social welfare of locals. The Sangguniang Barangay is the local legislative body that enacts local ordinances of tax collection and regulates the adherence to national government policies by locals. The Sangguniang Barangay also has legitimate power to implement

\(^{27}\) There was an average exchange rate of US$1=26.41 pesos in 1994 (United Nations, 1997: 295).
introduced development projects and has a responsibility to maintain pleasant social interactions with other barangays.

The researcher's previous experience and involvement in the establishment of the demonstration farms and other livelihood projects from 1983 to 1994 in Sibalew was useful. This experience provided a clear understanding of the interconnections, variations and complex patterns of development that existed in Sibalew. The purpose of the Sibalew case study was not to test any hypothesis. Rather, it was intended to examine, record and present the transformation process that occurred in Sibalew. An induction method (Gilbert, 1994: 23) of research was applied in order to use the actual experience of the researcher in this case study; the process in Sibalew was reliant on the Sociological Imagination identified by C. Wright Mills (2000) and this involved an analysis of the recent historical existence of Sibalew in order to connect and compare the accounts presented by locals. Observations during fieldwork in 1998 proved helpful to the researcher to record the historical events of the transformation of Sibalew. There were ethical issues that required sensitivity and caution, and the researcher was in a precarious situation being both an 'insider' and 'outsider.' The term 'insider' was relevant when the researcher was involved in the establishment of the demonstration farms in 1983-1994. From that time on, while conducting fieldwork in 1998 after an absence of four years, the term 'outsider' may be more appropriate as daily contact with those involved had ceased. There is a possibility that by being both an 'insider' and an 'outsider' some bias may be exhibited during the analysis of this work, but according to Marshall (1998: 497) methodological objectivity may be achieved when "...only an expression of shared values, or mutual activity on the part of [the] investigator and subject of research could elicit the required inter-subjective understandings."
8.1 Introduction

This chapter provides information on the recent history of Sibalew. The objective of this chapter is to describe the situation that existed in Sibalew before 1983. There are three areas of discussion: the situation before and after the development farms were established in Sibalew; the current situation and the associated issues in the development; and the local leadership and social capital in Sibalew. This description is necessary to compare the changes to rural lifestyles brought about by technological progress and economic development. Sibalew was considered one of the most depressed rural barangays before the arrival of the College, which introduced the outreach education projects in 1983.

8.2 The Situation before the Development Projects Established in Sibalew

This case study examines the transfer of agricultural technology and the resultant sociocultural transformation. The fieldwork of this study was undertaken in Sibalew, a barangay entrenched in the traditional Filipino ways of life, even in the early 1980s. In 1983, Sibalew was a relatively depressed barangay in the Municipality of Banga. About 125 households depended upon farming as the main source of livelihood (ASCA-ERDSC Information Leaflet: No. 1). The locals cultivated small areas of rice paddy, grew bananas, root crops, and raised native animals for their subsistence. Slash-and-burn farming kaingin was widely practised by the local farmers in the upland areas of the barangay. Local employment was scarce and many of the locals, particularly men, laboured outside the barangay in the sugar cane plantations in the nearby provinces of Negros and Iloilo.

28 All annual reports cited in this thesis are listed in chronological by date on the lists of references.
Before 1983, accounts from Sibalew locals indicated that they were very poor, employment was limited, and the living conditions were traditional. Locals enjoyed a simple lifestyle and had access to most of the necessities for living. Very little money was necessary to provide the daily necessities as a general rule. Drought and floods brought hardship occasionally. The locals had more free time for relaxation and social interaction. There was little economic pressure to work on the farms due to the low cost of living in the barangay. Their houses were small, temporary and made of local materials, with bamboo walls and nipa-thatch roofing. Many of the houses did not have efficient toilets and unhealthy sanitation was common. Open wells and local creeks were the source of water for drinking and domestic use. There were frequent occurrences of influenza, colds, typhoid fever and dysentery. The locals had little access to health services and most of the children were malnourished. There was no health subsidy available from the government and the survival of the family depended exclusively on the children, relatives and help from other people. There was no electricity, no television or stereos and battery operated transistor radios were the main source of news and information. Kerosene lamps were used for lighting and firewood was the main source of energy for cooking. There was no formal access road from the barangay to the highway. Locals hiked 2 kilometres to reach the highway where they caught the bus to town. Horses and buffaloes pulled sledges to carry produce from the barangay to the highway. Then buses or jeepneys transported the produce to market.

Locals saw education as important. It was perceived as a passport away from poverty. Education, however, was beyond the reach of most locals in Sibalew due to low income. Most locals completed an elementary grade education, married early at fifteen years-of-age and the new couple then relied heavily on the support and help of their parents. The parents then usually provided a parcel of land to the couple so they could cultivate crops and raise animals as a source of income. Production was geared to family obligations, not monetary exchange or profit (Bautista, 1988: 144). Family ties and kinship were very strong in the barangay. The parents’ authoritative role, particularly to their children, was emphasised, based on the traditional Filipino cultural practices. In particular, the principles of paggalang, ‘love and respect of elders,’ pakikipagkapwa-tao ‘having a good relationship with others’ and the pakikisama ‘to go along with others’ were important cultural values that helped preserve the Filipino identity in rural barangays (Espiritu et
al., 1995: 72). The customs of paggalang, pakikipagkapwa-tao and pakikisama encompassed the most significant values of Filipino culture, although there were many others still practised (Espiritu et al., 1995: 69-76). Such behaviour was considered a ‘sociocultural treasure’ and reinforced morality, manners, generosity and all the values that were cherished in the traditional way of life in Sibalew.

8.3 The Current Situation and Issues in the Development of Sibalew

In 1983, the local agricultural economy in Sibalew gradually began to change from a family subsistence to a market-oriented farming method. Intimately associated with the improvement of agricultural production was the transformation of the traditional cultural practices of the locals. During the period of technology transfer, there was a considerable Westernising effect on the local social behaviour in Sibalew; however, some local traditional practices were helpful to those engaged in development and capitalistic enterprises.

Traits such as paggalang, pakikipagkapwa-tao and pakikisama were weakened and replaced by urbanised social behaviour. These ‘cultural treasures’ were circumvented and undermined by the imported values of consumerism of foreign products produced by an external capitalist society. M. Shamsul Haque’s (1998: 292-311) Bureaucracy and Underdevelopment in Developing Societies presented a critical review of underdeveloped countries. Part of his review included a historical analysis of cultural underdevelopment in developing countries. Haque mentioned that the “the state bureaucracy under colonial rule played a crucial role in influencing and weakening the precolonial indigenous cultures in developing countries” (Haque, 1998: 298). This was through an intensification of “cultural secularization” and concessions for holders of a “Eurocentric view of human progress,” and such schemes were strengthened through “modern education institutions” for easy dissemination of a “Western framework of research and scholarship” (Haque, 1998: 298).

Further, Haque explained that models of modernisation, on which the development of Sibalew was based, were rooted in “the belief that Western knowledge, technology, and procedures were easily transferable to developing countries” (Haque, 1998: 299). However, Haque suggested that in most cases the “Eurocentric cultural transformation”
that modernisation promoted in developing countries “was imposed by the state rather than endorsed by the common masses” (Haque, 1998: 299). While the State policies accommodated theories of modernisation, Haque insisted that the practice led to “cultural impoverishment and dependence” (Haque, 1998: 300). Tenbruck (1990, cited in Haque, 1998: 300) suggested that “individual cultures are losing their autonomy as they are being drawn into the network of electronic mass media that are instrumental in creating cross-cultural audiences, movements, issues, images and lifestyles.” The claims made by Tenbruck regarding the consequences of development on local traditional cultural practices were confirmed in this analysis of the changes that occurred in Sibalew.

An example of the consequences of the development that occurred in Sibalew was the increased emphasis on pamamay-ari, which means “property ownership” or materialism (Espiritu et al., 1995: 72). Espiritu et al. maintained that pamamay-ari was a particular type of Filipino behaviour. Such individuals indulged in the acquisition of personal belongings and developed an awareness of social position that ultimately created social inequality and disharmony in the community. However, the inculcation of such values, manifest through the possession of material goods and the desire for social position, was an integral part of technology transfers.

In a rural society like Sibalew, individuals engaged in this preoccupation were regarded by others as thinking more about themselves than other more important aspects of life in the rural barangay. An indication that the practice of pamamay-ari was increasing was reflected in the number of households, which rose from 125 (1983) to 179 (1997). Families were suddenly engaged in an urgent diversification of farming practices in order to maximise produce, and consequently income, in the new market-oriented economy. Rambutan and citrus orchard plantations, multiple cropping of banana, coconut and cash crops, as well as rice farming, were popular livelihood projects for Sibalew locals. According to Agustin (1990: 91) the local farming income in 1990 improved from PhP12,046.20 (US$497.57)²⁹ to PhP60,000 (US$2,036.00) and was confirmed by the ASCA (ASCA-ERDSC Information Leaflet No. 1 Series of 1997: 5). However, this income was still considerably lower than the average household income at a national

₂⁹ There was an average exchange rate of US$1=24.31 pesos in 1990 (United Nations, 1997: 295).
level. A previous statistical report showed that in 1994, an average annual family income in the urban areas was PhP113,121.00 ($US4,283.26)\textsuperscript{30} with an average annual expenditure of PhP91,115.00. The average annual income for families in rural areas was PhP53,483.00 ($US2025.10) with an average annual expenditure of PhP44,427.00 (1997 Statistical Yearbook: 17).

The improved agricultural production of local Sibalew farms brought economic development and changed the physical and social environment in this barangay. Various physical structures were introduced that changed the face of the landscape in this barangay. Some considered that a consequence of such change led to a decline in the traditional cultural practices of the locals. A physical indication of the improvement in Sibalew of living standards was the increased number of concrete houses constructed. Most of these new houses were connected to the water supply in 1983, and electricity in 1985. More than half of the households were supplied with safe drinking water. The installation of the electricity and water systems was sudden. Access to electricity, in particular, led to increased levels of competition amongst the locals for electronic appliances. These utilities had an immediate impact on the development of Sibalew. The availability of the utilities encouraged the locals to work hard. The total area of cultivated land expanded. Maximizing income was necessary in order to pay for the additional costs that development brought to the barangay. New farming technologies encouraged diversification to satisfy the supply demands of the local market, and to generate profit.

However, the Sibalew farmers had limited opportunities to diversify their farming activities. The fluctuating market prices for produce, the small size of farms, the location of farms in relation to the access road, topography and limited capital were factors needing consideration. In fact, any changes in farming methodology also involved additional costs.

\textsuperscript{30}There was an average exchange rate of US$1=26.41 pesos in 1994 (United Nations, 1997: 295).
In particular, the farm labour arrangement in Sibalew changed, and the practice of *bayanihan* was an example. *Bayanihan* was a customary practice in the rural barangays like Sibalew where “two or more people worked together for a common end” (Hunt *et al.*, 1997: 137). The locals had considered *bayanihan* cooperation an important element in rural life (Hunt *et al.*, 1997: 138). However, this traditional practice declined during the development of Sibalew.

*Bayanihan* was not strong enough to fully withstand the changes that development brought to the barangay. Sibalew farmers began to emphasize the economic value of all activities. The use of labour was paid for in cash, instead of using the concept of the traditional paternalistic labour system. The locals still recognised *bayanihan* as a major factor in rural life but the principle of such a traditional practice was no longer taken for granted for mutual help, compared with fifteen years earlier. When one person had rendered voluntary work to another, reciprocity was expected. The reciprocity involved the return of labour at a future date agreed upon by both or all parties, or an exchange of a kind agreeable to the individuals involved was negotiated (Hunt *et al.*, 1997: 138).

A good example of reciprocity was the development of the Cooperative introduced by the Peace Corps to run the Rice Mill Project in 1989. Another example was the Barangay Council, which initiated two new Associations, the Sibalew Water Works Association in 1986 and more recently, the Sibalew Motorcycle Operators Association in 1997. The Sibalew Water Works Association attended to the maintenance of the water system. The Sibalew Motorcycle Operators Association helped to facilitate the continuous operation of the motorcycle passenger business in Sibalew. Although the Cooperative and the Association took different forms to cater for the needs of locals, the development of both these local organisations were based on the “symbolic cooperation” of locals through *bayanihan* (Hunt *et al.*, 1997: 138). The Cooperative and Association were formed to harness the efforts of the locals cooperatively in the use of the new utilities.

The emergence of the Cooperative and the Association in Sibalew created a new pattern, a variation of the traditional system of *bayanihan*. First, *bayanihan* was organised through a local organisation. The *bayanihan* that was traditionally based on reciprocity was transformed into a more formal and organised activity. It was still based on symbolic cooperation, but this extended only to the members within the organization rather than in
the form of mutual help for individuals. The motive for this new alliance was exclusively profit. But the pursuit of any individual member’s self-interest led to all members working cooperatively. This motivation was considered helpful to the other members, as well as the individual concerned. The buying of farming supplies, getting loans, marketing of produce and securing needed services such as technical assistance were facilitated by the Cooperative and Association. The Cooperative and Association acquired such items and services through middlemen at reduced cost, thereby increasing the profit for all of the members. Bayanihan was still considered the basic method of accomplishing most of the laborious tasks in the barangay, but it was modified to suit the needs of the members of the Cooperative and Association and became a normal part of their operational procedure.

In 1987, the expansion of agricultural production in Sibalew necessitated other business-orientated support. The construction of the access road was an example. The road served different functions in the development of this barangay. Some locals took advantage of the road to gain access to previously uncultivated areas of the uplands. Others took advantage of the road to transport their produce to the market. With the increased volume of traffic, sari-sari stores became more profitable. Some locals, particularly the women, engaged in trading - buying and selling the produce that was available. This was because men preferred to work on the farm while women, it was thought, had the patience and self-restraint considered necessary for the trading business. The economic activities of Sibalew women established extended marketing networks that reached beyond the confines of their barangay.

An example of this was the suki relationship between buyers and sellers described by Hunt et al., (1997: 138). The suki was a form of traditional business practice where the buyer agreed to patronize a particular seller. The seller was offered credit and a discount (Hunt et al., 1997: 138). Sibalew locals who were engaged in trading local produce had applied this strategy in dealing with the town traders.
Plate 4. Supplementary Sources of Income of the Locals. *Upper:* the inside of the Sibalew Multipurpose Sari-Sari Store selling general goods. This store is run through a cooperative and provides for the immediate needs of members. Similar types of stores are to be found in Feliciano and Linayasan but are managed by individual families. *Lower:* women fish vendors at the temporary Barangay Market Center in Sibalew (Photo: R. L. Saladar, 1998).
Hunt et al. (1997) stressed that the relationship that existed between the buyer and seller could be considered antagonistic. This was because the buyer sought to pay a low price, while the seller sought to obtain the highest price possible in every transaction. It was suggested that the suki pattern could minimise antagonism between the buyer and seller, and the patronage relationship could assure the continuation of the marketing outlet for the produce. The improved roads in Sibalew provided an economic advantage to the locals which was exploited by the local traders. As well as farming, various types of new family-based businesses were growing in this barangay. The locals spent more time engaged in economic activities. There was less free time for relaxation and social interaction.

Conversely, there was increasing economic pressure to improve the lifestyles of locals in the barangay. The social interaction and atmosphere in the barangay changed. Before the agricultural economy in Sibalew began to develop, the locals took for granted that time was not important. Locals took an interest in what everyone else was doing and there was not much difference in material assets. Some locals were landowners and others were tenants, but there were not many significant differences amongst them generally. The locals always stopped to talk to their neighbours. Life was unhurried and social interaction between the locals was considered an important and necessary part of life.

Various entrepreneurs appeared in Sibalew with the advent of roads, electricity and other technological improvements. Notably, compared to the traditional way of life, now the locals were engaged in very diverse and complex activities compared with the early 1980s. In 1990, production had become very important, efficient and ordered in the barangay. Production was for profit, a marked change from earlier times when production was an attempt to meet local demand. The locals began to value their time and acknowledged that time was an essential aspect of increased production. The locals demanded wages for their labour. Money had become indispensable for survival in the new social environment. The relationships between family members, neighbours, as well as people in other barangays had changed. Farmers “had to be paid enough to enjoy imitation of the western consumer lifestyles” (Harrison cited in Haque, 1998: 299). Cash was needed to pay electricity bills, for household appliances, general household necessities and other items advertised on television. Other sources of income were
initiated and different types of income-generating projects have been established recently.

In 1998 when the fieldwork for this case study was conducted, the Sibalew locals were more engaged in various entrepreneurial endeavors. The existence of electricity, the access road and water system provided convenience for Sibalew locals and they were fortunate that their remote barangay had such facilities. Sibalew was considered the 'model barangay' where resources from various agencies were pooled and integrated. The integration of resources and the combined development of many forms of initiatives introduced by the various agencies improved the education of locals in Sibalew. Recently, children have had more choice of schools. The children in particular have enjoyed more freedom of choice regarding their eventual profession. The prosperity of the farming industry, particularly citrus and rambutan orchards in Sibalew, improved the income of farmers. The increased income was a prerequisite if the locals' children were to gain access to a better education. Academic qualifications were perceived as a passport away from poverty.

8.4 The Local Leadership: The Social Capital of Sibalew

One of the most interesting topics that emerged in this thesis was the social capital of locals in Sibalew during the period 1983-1998. The term 'social capital' was used to describe reciprocal relationships established between the locals in Sibalew and the administration and staff of the College over that time. Two elements are important in these relationships: networks, and trust, that exist to each party's mutual advantage. It was the intra-social ties, between Sibalew locals and the College, and the extra-social-networks, between both parties, based on individual self-interest that created the social capital. Such a definition of social capital was based on the work of various authors (Fine, 1999: 4-10; Flora, 1998: 481-506; Hofferth and Iceland, 1998: 574-598; Woolcock, 1998: 193-196; Marshall, 1998: 608-609 and see also Warner, 1999; Schulman and Anderson, 1999).

In Sibalew the 'social capital' was created largely by Jose Ingalla and continued after his death due to an accident in February 1998. It was apparent during the fieldwork in 1998 that the social ties, networks and outside connections that Ingalla had helped develop
between the locals and the College persisted. It was observed that locals in Sibalew, who had a very close social relationship within the barangay, had a stronger attachment to the College than the locals of Feliciano or Linayasan, the other barangays where fieldwork was undertaken. It is readily acknowledged that the analysis of this thesis might be subjective because my work experience had been located in Sibalew, more than in the other barangays. This being the case, the researcher is very aware he may have developed more empathy and friendships with this particular group of people. However, subjectivity aside, there are significant mitigating factors that need to be explained when seeking to understand why the residents of Sibalew were so close.

The closeness of locals to the College Staff in the three case studies was shaped by interrelated elements that affected their participation and attitude toward change. Six separate elements were identified in the course of this case study but there was some overlap. First was the location of barangay in relation to the market. Second was the style of leadership of local officials in conforming to traditional cultural practices. Third, the amount of entrepreneurial training and financial assistance the locals had received from the College varied. Fourth was the type of development projects and infrastructure facilities established in separate barangays. Fifth was the prolonged length of time the locals received assistance from the College. The final element was the prevailing local economic conditions and the kinds of livelihood projects the locals were engaged in.

In regard to location, Sibalew was considered the most isolated barangay in Banga. However, Sibalew locals had received an enormous amount of entrepreneurial training and financial assistance. There were major infrastructure facilities established by the College in Sibalew that were not available to other barangays. Such infrastructure facilities were electricity, water, and access roads. On other hand, Feliciano and Linayasan had received less livelihood skill training or financial assistance from the College. Interviewees indicated that the College had assisted Feliciano locals for about eight years from 1989 to 1997 while Linayasan locals were provided only one year of assistance in 1994. The locals of Sibalew received assistance from the College for fifteen years from 1983 to 1998 when the fieldwork of this thesis was undertaken in Aklan.

The long period that the College had assisted the locals in the barangay of Sibalew elicited arguments from members of other barangays and raised political, economic,
social and cultural issues. For example, locals from neighbouring barangays claimed the farmers in Sibalew were heavily dependent on the College despite their obvious economic improvement. Some local officials criticised economic development in Sibalew, claiming that rather than self-reliance the projects had produced dependency.

Because College assistance had been provided so readily to the Sibalew barangay, other farmers in neighbouring barangays exhibited jealousy and suggested deprivation during interviews. They could not understand why Sibalew alone received the extensive resources provided, or the special attention they had from the College. It was argued that Sibalew obtained most of the resources and assistance while other barangays received little or none. It was difficult to identify what particular factors had elicited College assistance to the locals in Sibalew for a period of fifteen years. Furthermore, it was not clear from the previous section how Jose Ingalla, the former barangay captain, influenced the College to invest in his barangay. Some accounts from locals were examined to understand how social relationships were built within the barangay of Sibalew, and extended to the staff and president of the College. The analysis suggested that there were aspects of a reciprocal relationship between locals in Sibalew and the staff of the College. Particularly important was the social and economic relationship that formed between Sibalew and the College in order to support the demonstration farms in the barangay continuously.

It was mentioned that unique social networks and trust linked Sibalew and the College over a period of fifteen years. The aim of such an alliance, by locals and College staff, was to improve the economic conditions of the locals in Sibalew, although there was criticism from locals of other barangays regarding the distribution of assistance. Officials from other government agencies and locals from neighbouring barangays argued that the centralised extension approach by the College to Sibalew specifically, was preferential and deprived other barangays of assistance. This issue surfaced during interviews with outside local officials, Sibalew officials and was put to the locals of Sibalew, who admitted an awareness of such criticism.

Cesar Ingalla, the incumbent barangay captain of Sibalew, had confirmed the existence of such complaints during formal and informal interviews. He mentioned that he was aware of rumours from some officials and locals from neighbouring barangays regarding
the College's attention on Sibalew and the close connection between Sibalew and the College. However, he said that such an issue was normal because of the unequal distribution of economic opportunities in Filipino life generally.

Ingalla explained that the *pakikisama* or "good relationship" between locals in Sibalew with the staff of the College could not be hidden from outsiders. Such social phenomena were already implanted in the minds of the locals, due to the inconsistency with which successive governments had introduced livelihood projects in rural barangays. He agreed that the criticism was valid due to difficulties encountered by some local officials getting access to funds from various agencies to finance development projects in their barangay. Ingalla acknowledged that access to government funds was not easy, but that many local officials thought political patronage was the means to acquire funding. Indications in recent literature suggest that such strategies had been used effectively in Filipino society (Espiritu *et al.*, 1989: 70; Panopio *et al.*, 1994: 136). Ingalla agreed that patronage was useful to get resources from the government. However, he disagreed with the suggestion that patronage allowed the projects to be funded for an extended period of time. Longer periods of patronage were likely to be affected by the negative aspects of *utang na loob* or reciprocity, which brings nepotism and favouritism to social and economic relations in barangays (Panopio *et al.*, 1994: 136; Espiritu *et al.*, 1989: 70).

According to Ingalla, there were three crucial steps to gain access to the resources of various agencies that other barangay officials were not aware of. First, he suggested, access was not just through words or ideas but it should be in the form of social action. Second, he emphasised that convincing the government to finance projects was not achieved by talking about what the locals needed; it was more dependent on finding key people who would listen to their problems. Finally, he intimated that funding was not only for economic development but also for the reconstruction of social relationships between locals and the developers. Ingalla's identification of those three elements was consistent, it is suggested, with the principles of the "social capital" which had developed between Sibalew and the College based on linkage and mutual trust as described earlier in this section.

The former barangay captain, Jose Ingalla, described the relationship that existed between the College and the Sibalew people through the use of an analogy that hinted at
the social capital his people had acquired. This concerned a ‘base-ball game’ (a sport popular with Filipinos) where various actors were associated with particular roles found amongst the players. Jose Ingalla claimed the locals of Sibalew were ‘good catchers’ of the College’s livelihood projects. He declared accepting projects from the College involved more than just simply distributing them to the locals of Sibalew. It was part of a ‘game’ between locals in Sibalew and the staff of the College, he said. In this context, other barangays could be considered other teams or players or even a part of other games. The “stakes” in the game are the projects and resources of the College.

Jose Ingalla added that in such games there were winners and losers: good and bad players. He argued that to participate in the game it was necessary to know the rules, and how to play the game (see Bourdieu, 1993: 72). He mentioned that teamwork, commitment and co-ordination amongst players were very important. Furthermore, when teamwork occurred, then co-ordination of the players improved and at the same time the relationships established became the capital with which to win the game. This account illustrates the perception of Jose Ingalla and his awareness of how the locals of Sibalew worked with the staff of the College. This analogy is very similar to the account offered by Bourdieu (1993: 72) in his discussion on social fields.

In my discussions with Jose Ingalla prior to his death, he stated that before the demonstration farms were set up in Sibalew in 1983, the College had tried to introduce similar projects in 1980 in the barangays of Agbanawan, Badiangan, Dingle, Polocate and Sigcay.31 Jose Ingalla claimed that of those barangays, Sibalew was the last to have the laboratory demonstration farms. However, he noted the demonstration farms in the other pioneering barangays did not survive long. He learned from the College that technical, economic and social problems were considered the main causes of unsuccessful demonstration farms. However, he also suggested that a lack of co-ordination between locals and barangay officials was detrimental to the long-term development and effectiveness of demonstration farms in the pioneer barangays.

31 These three barangays were all in the Municipality of Banga and closer to the College than Sibalew.
Cesar Ingalla, the incumbent barangay captain, mentioned that he was also aware of the problems the College had encountered in the first four barangays. He was the barangay secretary during the term of his cousin, Jose Ingalla, who was captain from 1972 to 1994. He took over the position of barangay captain after a local election when Jose Ingalla was elected as a municipal councillor in 1994. Cesar Ingalla contended that an awareness of the previous experience of the College with the four other barangays helped Sibalew people to formulate a new approach when working with staff from the College.

Jose Ingalla argued that working for the interests of the different parties was not an easy task, despite the fact that officials of other barangays apparently thought it was. He suggested that to cater to the interests of both parties, the locals in Sibalew and the staff of the College, social actions were more necessary than ideas. He cited an example of the appropriate use of the principles of mutual values such as paggalang, pagmamay-ari and pakikisama. He also suggested it was necessary to reshape the attitudes of bahala na, manana habit and hiya by practising pakikipagkapwa-tao in the standard manner. Ingalla argued the need to emphasize their desirable benefits in order to have social justice and equality. But that was not an easy task. It varied, according to Ingalla, depending on the interests of locals and other (outside) barangay officials and their interpretation of the values as being 'universal or personal'. In such cases, he pointed out, the significant role of a 'local official' was to bridge the gap between locals and the staff of College.

In bridging gaps between locals and the staff of the College, Jose Ingalla mentioned that there were elements that needed to be understood regarding who built the foundation of the bridge. An example is the social ties that cement the relationships of the people involved. He posited that to build the social ties between people involved in the project, the barangay officials must first be aware of the cause and effect of influencing factors such as internal (within barangay) and external (College) forces which the officials must contend with. The official must be aware of these issues and gain knowledge from his awareness. This knowledge affects his leadership, and ultimately the social capital of the entire group. Ingalla suggested that to build leadership, commitment to the public interest necessitated barangay officials setting aside their personal and political interests. This

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32 In Banga Sangguniang Bayan Resolution No. 11, S.1988, Municipal of Banga, Aklan, Philippines.
account illustrated the leadership ideals of barangay captain Ingalla (see Plate 5). More than a thousand locals and a great many officials honoured him at his death. Stevens Fuentes, the Municipal Mayor of Banga, offered a significant and sincere tribute at the funeral of Barangay Captain Jose Ingalla:

Hon. Ingalla, as a symbol of moral transformation will forever remains[sic] in the annals of our people and the enduring shrine in our heart because of what he did to transform Sibalew into what it is today.... I myself am a living witness, that as SB member, he had the readiness to help those who would come to his succor [succour], a [sic] countless people, who Nong Joe had helped. This for sure was in furtherance of his mission in life, his unwavering commitment for rural transformation, guided as he was by the remarkable Sibalew experience.

[Further] he was a man of action not just words, a visionary leader with a sense of mission. He is indeed a complete contrast of self-proclaimed leaders, who are only up to use their positions for self-aggrandizement, a complete contrast of petty rabble-rousers who are only bent towards grandstanding, for his is the purity of motive, and the humility of heart, befitting a true Christian leader and servant of God (Eulogy of Stevens Fuentes, March 7, 1998: 2).

One aspect of leadership examined in the three case study barangays was to contrast the behaviour of local officials observed during their sessions. It was noted that the sessions were orderly following the instructions of parliamentary procedures on the Local Government Code (Nolledo, 1991: 159-83). Local officials interviewed claimed they had regular sessions every month and, twice a year, a full barangay assembly. I attended one barangay assembly at Sibalew on January 10, 1998. Feliciano and Linayasan had conducted their barangay assembly before my fieldwork commenced.
Plate 5. In Remembrance of Jose Ingalla. This photo shows one of the Filipino traditional cultural practices. The deceased was kept for several days in his home as a part of the grieving process. This provided the opportunity for distant family and friends to arrive and pay their last respects. The woman is Jose Ingalla’s wife, and she is paying her last respects to her departed husband. The death of Ingalla elicited gestures of respect, honour and prestige from his family, friends, locals, politicians and higher officials. His coffin bears the Philippines Flag, a symbol of nationalism, and a unique honour, as the founder of much of the development in Sibalew. The bouquets of flowers exhibit symbolic cultural esteem and some have ribbons with titles and names, to indicate where the flowers have come from, and the high regard that the contributors reserved for him (Photo: R. L. Saladar, 1998).
I attended two series of sessions of the local officials in each of the case studies. One of the important aspects in local leadership I had observed between the three groups of local officials was the punctuality of officials from Sibalew. This was different to the sessions held in Feliciano and Linayasan. In Sibalew, the local officials conducted their sessions at 6:00am, which was uncommon amongst barangays. Such an early time was unusual as officials in Feliciano and Linayasan scheduled their meetings in the afternoons.

In a group discussion with the two main leaders of Sibalew, the former and the incumbent barangay captains, they mentioned that there were three main reasons for scheduling their session at 6:00am. First, their primary reason was directly connected to nature. In the morning, as the sun rose it brought new light and energy to the plants and hope to the people. It was explained that as the sun rose it also produced an image and was symbolic of fresh ideas and new knowledge. Therefore, Jose Ingalla argued that a session at 6:00am would help those in attendance to have fresh minds with which to think of new ideas. In particular, a fresh mind was important for understanding problems and identifying solutions in their sessions.

The second reason was related to the complicated nature of their official functions and to their personal and economic activities. The incumbent barangay captain, Cesar Ingalla explained that because their session was held early in the morning, they finished early too. This allowed time for their members to work on their farms or attend to other business. However, the incumbent barangay captain argued that when the sessions were held in the afternoons most individuals were tired and not predisposed to discussing issues and problems in the barangay. Part of the reason for this behaviour was related to the imbibing of coconut wine. The final reason was related to cultural values. Both the former and the incumbent barangay captain argued that to maintain their reputations they had to be punctual for duty in the barangays.

The above account illustrates how the barangay officials in Sibalew established their rapport with the locals. However, this does not mean that the style of leadership adopted by the barangay officials of Sibalew was applicable to officials of other barangays. It is probable that officials of other barangays established their rapport with their people differently. Local officials have various strategies to wield their legitimate power to
obtain goals, or to perform their official duties so as to build trust and demand loyalty from locals.

In the three barangays, interviews with barangay officials indicated that their own money was used to expedite transactions to accommodate the immediate needs of the locals. Such a traditional practice enhanced the formation of social bonds between barangay officials and locals. The social bond developed into a power that could be used by both parties to achieve mutual goals. However, the traditional practice of barangay officials using their finances to help the less affluent farmers and locals has been controversial and problematic in the light of local cultural practices.

A common controversial issue regarding local officials was the variation of interpretations of Western-Filipino culture. One individual, exposed to more Western culture, may view a particular social practice, for example, barangay officials using their own money, as a form of generosity tinged with bravado. However, such generosity may, over time, lead to corruption. This occurs when the use of private money is directed more from personal interest than social good. Other observers of this practice, more disposed to Filipino custom, may interpret the behaviour simply as a mutual obligation. Because of such contradictory interpretations of the behaviour of local officials, arguments are widespread and common. While cross-cultural interpretation creates controversy, there is also internal cultural equivocation within Filipino society as well. An example is the use of the principles of utang na loob or reciprocity that usually turn into patronage relationships. This relationship is tied to loyalty and opportunity for officials while locals seek avoidance of poverty.

In Sibalew, there are various local cultural practices that illustrate social capital: the linkage and trust that exists between barangay officials and the locals. Some examples of such cultural practices have already been described, particularly the barangay officials' establishment of rapport with the locals. However, there are other circumstances that show how social capital operates outside the barangay. Of special interest to this thesis was the relationship between the locals in Sibalew and the staff of the College when setting up the demonstration farms.
8.5 Summary

A historical description of Sibalew before 1983 and the economic development since has been discussed. The living conditions in Sibalew before 1983 were compared with the conditions that had developed by 1998. Sibalew was an economically backward barangay before the ASCA introduced the outreach education projects. From 125 households scattered over 310 hectares of Sibalew, the number of houses rose to 179. Subsistence farming was the main source of livelihood. Slash-and-burn farming was practised relentlessly and caused severe soil erosion to the detriment of agricultural production. A lack of capital or access to bank credit, rugged topographical locations far from the market, limited access to health and education, and a lack of employment were problems. Service utilities were very limited. Houses were small, temporary and made of local materials. Unhealthy sanitation was common. Many houses did not have efficient toilets. Open wells and local creeks were the source of water for drinking and domestic use. Outbreaks of influenza, colds, typhoid fever and dysentery were frequent in the barangay. The survival of the rural family depended entirely on the children, relatives and help from other people. Because there was no electricity, battery-operated transistor radios were the main source of news and information. Kerosene lamps were commonly used for lighting. Firewood was the main source of energy for cooking. The access road from the barangay to the highway was not properly maintained. Horses or buffaloes pulled sledges to carry produce from the barangay to the highway. Locals walked two kilometres to the highway and caught the bus to town.

Despite being very poor, with simple living conditions and very limited employment, Sibalew locals enjoyed the Filipino traditional rural lifestyle. Family ties and kinship were very important to them. Agricultural produce was geared to family needs and obligations, not monetary exchange or profit. They had access to most of the necessities for simple living. What the locals produced provided very little income but was enough for their daily necessities and the limited education of the children. The locals had plenty of time for relaxation and social interaction. Because the cost of living was very low the locals were not under any economic pressure to work on the farms. However, drought and floods brought hardship occasionally. The authoritative role of parents and the moral values that demanded respect for elders were strongly valued by the children and young people. The Filipino customs of paggalang, pakikipagkapwa-tao and pakikisama were
rigidly practised. Sibalew elders valued those customs as the 'sociocultural treasures' of their barangay.

In 1983, the mode of agricultural production in Sibalew gradually changed from a family subsistence to a market-oriented farming economy. Subsequently, the Filipino rural lifestyle in Sibalew was affected by the economic change. Local cultural traits such as *paggalang*, *pakikipagkapwa-tao* and *pakikisama* were weakened and replaced by urbanised social behaviour. The imported values of consumerism, particularly of foreign products, grew and weakened the authoritative role of parents and changed the moral values of the young people. The increased possession of material goods and the desire for social position were manifestations of change. The locals were disturbed by the materialistic behaviour of some individuals. They felt that such behaviour created social inequality and disharmony in the barangay.

The improvement of the new Sibalew agricultural economy changed the physical structure, indeed the total landscape of this barangay. The social environment was also dramatically changed and it weakened the traditional cultural practices of the locals. Many new concrete houses were constructed and connected to the electricity and water supply. The installation of the water system in 1983 and electricity in 1985 led to increased levels of competition amongst the locals for electronics appliances. The availability of the utilities, some argued, encouraged the locals to work hard. The cultivated land area was expanded to allow for some diversity and also to provide the extra income necessary to pay for the additional costs of living that the utilities brought to Sibalew. But the fluctuation of market prices for produce, the small size of farms, the location of farms in relation to the access road, topography and limited sources of capital were significant factors that led to the diversification of agricultural production in Sibalew.

In 1986, the diversification of agricultural production changed farm labour arrangements in Sibalew. The local farmers began to emphasize the economic value of all activities on their farm. For instance, *bayanihan* had been a major factor in rural life based on the principle of mutual help. This changed and labour was paid for in cash. However, *bayanihan* was still considered the basic method of accomplishing most of the laborious tasks. It became a normal part of the procedure in the barangay. The economic
development of Sibalew necessitated other business-orientated support utilities. The access road was improved and there were other new roads constructed. The improvement of the roads created increased traffic, and various types of new family-based businesses developed in this barangay. Local women were engaged in new trading businesses and established marketing networks with the town traders through suki, the buyer and the seller patronage relationship.

In 1987, the improvement of the access road to Sibalew provided economic advantage to locals, and was exploited by local traders. As well as farming, various types of new family-based businesses were growing in this barangay. The locals spent more time engaged in economic activities. There was less free time for relaxation and social interaction. Conversely, there was increasing economic pressure to improve the lifestyles of locals in the barangay. The social relationships and the atmosphere in the barangay changed. Before the agricultural economy in Sibalew began to develop, the locals took for granted that time was no important. Locals took an interest in what everyone else was doing and there were not significant differences in individuals' material assets although some locals were landowners and others were tenants. The locals always stopped to talk to their neighbours. Life was unhurried and social interaction between the locals was considered an important and necessary part of life.

Previous studies and reports in Sibalew showed that the economic development that occurred in this barangay provided a better way of life for the locals. Even so, in 1990 the study conducted by Agustin in Sibalew suggested that the standard of living of the locals remained far below the national standard. This finding, ten years old now, was confirmed in the accounts presented by the majority of Sibalew locals. However, the living conditions in Sibalew are better than conditions in neighbouring rural barangays. The education of Sibalew locals improved. The children now enjoy more freedom of choice of schools, which provides more opportunity for pursuing a profession. Sibalew prosperity (through the diversification of farming) was a prerequisite for local children to gain access to a better education. Overall, Sibalew locals valued the children's academic qualifications for economic stability and a means to avoid poverty.

In 1998, the findings of this case study revealed that the transformed rural lifestyle in Sibalew was more complex, compared with the 1980s. New technological influence had
also increased economic pressure and altered rural life in Sibalew. The emergence of various entrepreneurial activities in Sibalew with the advent of roads, electricity and technological improvements in agriculture changed the traditional way of life, and caused the loss of rural cultural values among the locals. The mode of production became very important and efficiency and profit was demanded in all parts of life. The locals valued time and acknowledged the essential demands of increased production. The relationships between family members, neighbours, and people in other barangays changed. The easy-going rural way of life that the Sibalew locals used to have was replaced with pressure to produce cash for the payment of electricity bills, household appliances, general household necessities and other items advertised on television. Previous studies suggested that there were big improvements for locals with the new Sibalew farming economy since the arrival of the AEOP in this barangay. This case study suggests that the recent development and altered lifestyle came at a cost to the relaxed and relatively egalitarian way of life. The changes were not sufficient to increase the income of the locals to a level near the national average in the wider context of Filipino society.

Finally, the social relationship, particularly the cultural capital that was attained in Sibalew between the locals and College staff was discussed in this chapter. Sibalew local officials developed a unique leadership style during the fifteen years the College assisted this barangay. The network and trust initiated by Jose Ingalla, the barangay captain, and his successor, built and maintained ‘social capital’ in Sibalew. This social capital in Sibalew was an asset that allowed the College to integrate various programmes and resources from external agencies in this barangay. The prolonged period of assistance improved the social and political relationship of both Sibalew and the College. The positive aspects of these arrangements elicited arguments from members of other barangays and raised political, economic, social and cultural issues. Locals from neighbouring barangays claimed the farmers in Sibalew were heavily dependent on the College despite their obvious economic improvement. Some barangay officials also criticised the economic development in Sibalew, claiming that rather than self-reliance, the projects had produced dependency. Most of all, the unequal distribution of the programmes and resources from external agencies, from which Sibalew had benefited, was the major source of criticism and contention from other barangay locals.
Chapter Nine

The Development of Demonstration Farms in Sibalew

9.1 Introduction

This chapter examines the development of the demonstration farms in Sibalew and contains five areas of discussion. The chapter begins with a brief description of the three types of agricultural education programmes promoted by the College to establish demonstration farms. An explanation of the Agricultural Education Outreach Projects strategy for rural development is next. The Foundation for Youth Development in the Philippines involvement in the development of Sibalew is discussed. Finally, details of the Diploma in Agricultural Technology and the Bachelor in Agricultural Technology based in Sibalew is presented.

9.2 A Brief Description of the Three Types of Agricultural Education Programmes

This section examines the three types of agricultural education programmes promoted by the ASCA to assist Sibalew locals develop demonstration laboratory farms. The three programmes are the Agricultural Education Outreach Projects (AEOP), the Foundation for Youth Development in the Philippines (FYDP) and the Diploma-Bachelor in Agricultural Technology (DAT-BAT). These three programmes will be briefly discussed in this section and identify the distinguishable features of the three programmes. This examination will elaborate on the sociocultural, economic, institutional and political issues associated with the changes brought about by the three programmes in Sibalew. In particular, the transformation of the Sibalew agricultural economy and the change that occurred in the traditional cultural practices of locals is analysed.

In 1983, the College promoted the first agricultural education programme to develop demonstration laboratory farms through the auspices of the Student Internship-College Outreach (SI-CO) Programme. The SI-CO was one of the component programmes of the AEOP; a foreign-funded project to improve the infrastructure, facilities and human resources of the College in order to strengthen the effectiveness of their extension programmes in rural barangays. The intention was to hasten the transfer of agricultural
technology that was expected to bring economic development and, subsequently, provide a better life in rural areas (AEOP Project Paper, 1980: 4-9).

The SI-CO Programme was based on a ‘top-down’ approach by Filipino development experts and the planners of the United States Agency for International Development. There was also consultation with representatives from other Filipino government agencies. The AEOP strategy was to provide loan assistance, materials, training and technical support to the College which promoted the introduced agricultural technology to rural barangays.

The SI-CO Programme conducted two weeks of field service training on campus for the Student Outreach Agents (SOAs). The training provided the SOAs which basic skills and information for their activities in the barangay. The primary objective was to assist the groups of Sibalew farmers who were to develop the demonstration farms. Then the SOAs lived with the farmer co-operator for three months after which time the projects became the farmer's. The SOAs submitted reports on their internship in the barangay: a requirement to obtain his/her college degree (AAC-AEOP Implementation Plan, 1980: 28).

The AEOP provided loan assistance and free planting material to support the SOAs and the farmer co-operators. The AEOP funding was terminated in 1984. Although the AEOP continued for too short a time in Sibalew to be fully effective, the SOA's sociocultural and technical integration into the local traditional society led to gradual positive economic changes in the local farming economy. Some elements, particularly the Student Internship programme, were continued in other barangay using a different source of funding.

However, despite the generosity of the AEOP which helped locals through economic development, findings from interviews revealed that the implementation of the project, particularly the ‘top-down’ approach, had some problems. Issues included sociocultural, political, technical and environmental factors. The AEOP strategy failed to acknowledge the imbalance of political power between the actors involved in the implementation of the projects in the field. The AEOP strategy contradicted some of the College's existing procedures. The AEOP failed to acknowledge the different economic returns from the
various income-generating projects and the effect that the differences would have on the students and other farmers. The AEOP failed to recognise that the biased selection of farmer co-operators would create jealousy amongst the unsuccessful farmers. The AEOP strategy was unable to address the diversity of local leadership in different barangays.

Technically, there were contradictions between the suitability of Sloping Agricultural Land Technology, promoted by the AEOP to address soil erosion, and the economic interest of farmers given the limited area of farmland. Finally, the generous AEOP funding improved infrastructure facilities and faculty, and the number of student scholarships which in turn strengthened the potential of the College’s extension programme in Sibalew. This generosity, however, undermined the potential of the other extension programmes, in particular the FYDP that the College had used to introduce the technology.

The second programme promoted by the College to assist the Sibalew locals was the FYDP, a non-stock and non-profit foundation established in 1966 (cited in ASCA-ERDSC Projects Proposal, 1993: 3). The FYDP’s main objective was to assist out-of-school youth, young adults and rural women to develop into young “citizen-producers” in Filipino society (see Flores and Sta. Maria, 1983: 1). Since 1977 the College had used the FYDP for a non-formal education programme, conducting short-term skills training courses in the rural barangays of Aklan (Quintana, 1982: 3). However, there were no indications from previous studies, or from interviews with locals, that the FYDP had conducted training in Sibalew before the AEOP programme was introduced in this barangay in 1983.

When the AEOP was introduced by the College in the 1980s the FYDP training attendance declined. Many college staff members were employed by the AEOP. The FYDP staff were outnumbered due to limited funding. In the same period, the College reports indicated that the training activities of the FYDP complemented the AEOP. In particular, the FYDP conducted various entrepreneurial skills training with farmers, out-of-school youth, young adults and women in Sibalew (see Aguilar, 1989a: 2). In 1984 the AEOP funding was terminated and many of the project staff were made redundant. The College returned their attention to the FYDP. The training activities in the barangay
increased, but the aims of the FYDP and the College remained the same: to improve life in rural barangays.

The training strategy of the FYDP was to hire educators on a contract basis for a period of 120 hours. These people could be college staff or locals with special skills in a particular area. The skill training was based on the interest of the local group or barangay officials. Some officials requested the College to conduct training in their barangay. Through the educators, participants were organised and training was undertaken during weekends (in the barangay). Like the AEOP, the FYDP also provided a limited amount of loan assistance and plants to the participants.

Findings from the review of previous reports from the College suggested that there were three separate projects offered through the FYDP, each involving linkage agencies. Linkage agencies are organisations that work in concert with the College and include the Fiber Industry Development Authority and the Department of Agriculture. Linkage agencies may be local or international. The linkages are created between institutions to implement various projects. Other examples of linkage agencies are the Japan International Cooperating Agency, Department of Public Works and Health, and the Philippine National Volunteer Service Coordinating Agency. Politicians were also involved in the projects, some requested training to be undertaken in specific areas, while others contributed funds. The linkages and political interest served to strengthen the FYDP training activities in the rural barangays as well as in Sibalew. The first project was the equipment grant from the Japan International Cooperating Agency in 1987 (Aguilar, 1990: 48). The College, through the FYDP, used the equipment to train the local farmers, out-of-school youth, young adults, the rural women and the Sibalew locals.

The second project was Pinya Fiber, a joint venture between the Fiber Industry Development Authority and the Department of Agriculture, implemented by the FYDP in Sibalew and in other barangays (see Aguilar, 1990: 50). Technically, although the Pinya Fiber Project provided a livelihood, particularly to the Sibalew women, an issue raised by local farmers was that the thorns on the leaves of pineapple plants deterred them from such activity. The thorns, and the attendant injury to farmers, dissuaded farmers from maintaining the plants. Consequently, they were not interested in expanding the plantations. Another issue that concerned farmers was that the plants were ‘gross
feeders’. A significant characteristic of pineapple plants is that they quickly make the soil deficient in nutrients. This meant that the farmers had to transfer the plants to new plantations after harvesting the leaves. The Sibalew locals considered such requirements excessive and they preferred the calamansi and rambutan orchards. However, the demand for piña clothes in the foreign markets was strong. The FYDP provided the Sibalew farmers with an opportunity to test the suitability of producing piña fiber.

Finally, the third project introduced in 1993 was the training and livelihood project. The finance was from the Community Development Fund of the Senators (1993 ASCA-ERDSC Annual Report: 5). The Community Development Fund was used by the College to finance the FYDP skill training of local farmers, out-of-school youth, young adults and rural women and establish their livelihood projects after the training. In this project a review of the 1993 ASCA-ERDSC Annual Report showed that Sibalew was absent from the list of barangays who were recipients of the training and livelihood projects. In Sibalew, locals mentioned that although their barangay was removed from the list, more recently they were involved in conducting visitors through the demonstration farms and promoting the technology. Sibalew was the destination for field trips. Local farmers supplied grafted seedlings to farmers from other barangays who visited Sibalew when they attended the training.

Such findings indicate the significance of Sibalew in the development of the College extension programmes. The FYDP works closely to address the needs of locals in the barangays. The three projects provided an opportunity for the College to continue the training activities in Sibalew and other barangays. The projects also provided additional financial input that enabled the FYDP to extend further technical assistance to the Sibalew locals. This was used to assist those not able to receive assistance from the AEOP. However, despite support from the linkage agencies and the College for continuing the extension programme in Sibalew and other barangays, findings from informal interviews and group discussions with locals revealed many sociocultural issues associated with the continuation of the College extension programme in Sibalew. Interviews indicated that locals from the other barangays accused Sibalew individuals of co-operating with college staff and engaging in the unscrupulous practice of sip-sip or connivance with college staff to obtain additional assistance. The lending of the Japan
International Cooperating Agency equipment to the College which then lent it to Sibalew was an example.

Finally, the most recent agricultural education programme the College has maintained in Sibalew was the DAT-BAT programme which began in 1996. The College conceived the programme as an innovative curricular approach based on the College's previous experiences in the AEOP and the FYDP. Theoretically, the concept of the DAT-BAT based in Sibalew was a combination of the College's informal and formal education programmes. The main objectives were to provide children of poor farmers with access to education, develop entrepreneurial skills, establish income-generating projects, encouraged self-employment through the project and to get a college degree (DAT-BAT: A Concept Paper Undated: 1). The College expected that the effect of the DAT-BAT in Sibalew could be readily observed. Successful students who established productive income-generating projects would have a “multiplier effect in the community” (ASCA, 1997a: 2).

The DAT-BAT based in Sibalew was designed by the College to be theoretically more sophisticated and better than either the AEOP or the FYDP. The scheme was a special programme of instruction, research and extension activities. Regular classes and laboratories were held in Sibalew. The style was of a “learner-focused philosophy” using the “learning-by-doing approach” with students’ family participation (ASCA, 1997b: 3).

The College believed that the “teaching-learning activities would capitalize on the real-life experiences” of students and relied upon the “family-based resources of the students coupled with resources and technology” from the College (DAT-BAT: A Concept Paper undated: 1). The assumption was that the DAT-BAT programme located within a barangay, such as Sibalew, would be an exemplar. Students and their families in the area could access the training in entrepreneurial skills and establish income-generating projects. The students were expected to be employed in their own established income-generating projects after completing the course (ASCA, 1997a: 3).

This course was based on an earlier one. In 1989 the College introduced the Diploma in Agricultural Technology in Sibalew, a two-year course. After the students completed the two-year course in Sibalew they studied a further two years to attain a degree: Bachelor
in Agricultural Technology. Two years of study earned a diploma; the second two-year course earned a degree. The classes and lectures for the degree of Bachelor in Agricultural Technology were held in the school campus at Banga. The College discontinued enrolment for the Diploma in Agricultural Technology in Sibalew. Students interested in the diploma were enrolled in the College campus at Banga. In 1996 the College revived the Diploma in Agricultural Technology in Sibalew adding the Bachelor in Agricultural Technology degree to the programme. The programme remained at two years for a diploma and four years for a degree. The students in Sibalew and nearby barangays were encouraged to enroll.

Interviews and group discussions with locals and college staff revealed persistent issues and problems from 1989 in the Diploma in Agricultural Technology course. Accounts that illustrate some of the issues and problems encountered by Sibalew locals are discussed later in this case study. Greater sensitivity by the College to accounts from locals could provide new insights and better understanding of the recurring problems associated with the recent DAT-BAT based in Sibalew.

A review of the recent reports of the College indicated that after the first batch of students completed the DAT-BAT in-campus school projects, the weakness of the programme was the rate of employment for graduates (ASCA, 1997a: 1). Reports indicated that many of the graduates did not go back to their farm to be self-employed. They did not use their knowledge and skills relating to production and management. Instead, the graduates looked for employment in other fields, in the cities and urban areas (ASCA, 1997a: 1). This result caused the College to review the concept of the course. After the review the staff of the College developed an alternative concept. The DAT-BAT programme was to deliver a barangay-based curriculum for the whole degree. Sibalew was the experimental barangay in 1996.

The findings of this case study confirmed the DAT-BAT programme did provide access to education for selected children of local farmers in Sibalew and nearby barangays. Those children continued their studies to get the college degree. Classes were conducted in the barangay where they lived. The programme provided technical, social and economic advantages to selected families in Sibalew. Some locals voiced displeasure at the implementation of the programme in the barangay. The College and the Sibalew
locals had conflicting opinions over the participation of families of students establishing income-generating projects. There was argument over the College's expectation that the use of 'idle resources' would be maximised, particularly the land and labor of the family of the students, which in turn was expected to help alleviate poverty in the locality. Some locals suggested that maximisation of labor and land would not significantly reduce poverty.

The findings of this case study suggest that the aims of the DAT-BAT would be impossible to realise without the involvement of other agencies and a major reconstruction of sociocultural and political behaviour in Filipino society. To some extent the programme could help selected barangays like Sibalew, but the technical and physical requirements of this programme alone would be unlikely to assist the poor. They had no land to cultivate in the barangay. The findings also indicated cultural issues regarding how the DAT-BAT could enhance the ability of students and their families to "become self-directed and self-sufficient" (ASCA, 1997a: 2). As with the previous Diploma and Bachelor degrees, there were contentious sociocultural and economic assumptions concerning income-generating projects and whether the students could be employed after completing the course. Further argument developed over whether the programme could discourage the migration of the barangay residents from rural to urban areas.

This section has briefly introduced three types of agricultural education programmes promoted by the College to assist the locals develop the demonstration laboratory farms in Sibalew. The development of the demonstration laboratory farm in Sibalew was started in 1983 through the AEOP using the SI-CO Programme. Interested students were trained as SOAs and assisted the local farmers in Sibalew. The opening of the demonstration laboratory farms encouraged the College to integrate the non-formal education programme of the FYDP.

The FYDP had been co-operating with the College since 1977 conducting short-term skills training courses in the barangays. The Sibalew locals received training from the FYDP only from 1983 when the AEOP opened the Sibalew demonstration farm. Training focused on nurturing the interest of the locals in improving their livelihood skills by establishing alternative income-generating projects in Sibalew. The most recent
type of agricultural education programme the College introduced to Sibalew was the DAT-BAT. This type of agricultural education programme was considered more academically and technologically advanced than the others. The concept of the DAT-BAT was an extension of the College’s previous experience drawn from the preceding two agricultural education programmes to promote agricultural technology in rural barangays.

The three types of agricultural education programmes had quite similar objectives: their common purpose was to improve the quality of life in rural barangays. The College used Sibalew consistently as an experimental area for education programmes that introduced new types of agricultural technology. There were variations in the way the programmes were used to address the needs of locals of Sibalew. Controversies associated with the implementation of the programmes were discussed: each of the programmes inherited strengths and weaknesses, often depending on the activities of the actors involved in the implementation.

The College invested financial, technical and material assistance over fifteen years in Sibalew. The investment and the length of time combined to produce a successful demonstration laboratory farm that became the source of technology for the barangay. The local agricultural economy improved and transformed the farming practices in Sibalew from subsistence agriculture toward a modern market-oriented farming system.
Plate 6. Linking Social Capital to Development. The photos illustrate an example of the process of development in Sibalew. Upper left: Dr. Aguilar (left) invites key officials to see first-hand the real situation of locals to plan the integration of programmes in 1983. Upper right: the U.S. Peace Corps foreign technical assistance is integrated with the activities of locals in 1986. Middle left: the construction of the access road provides work for locals so they can earn while they learn and facilitates development 1988. Middle right: Jose Ingalla (left) with a representative from the Japanese Government and a Japanese volunteer discuss aspects of the new water supply in 1988. Lower left: Dr. Aguilar shows external agency representatives the contribution locals made to the development process. Lower right: visitors enjoy rambutan produced on a local demonstration farm in Sibalew 1990 (Photo: Complements of the Barangay Council of Sibalew).
9.3 The Agricultural Education Outreach Project

This section provides a review of the AEOP. The review will examine and discuss sociocultural, institutional, political and other related issues raised by locals and college staff engaged in the fieldwork and the previous studies and reports. Particular attention will be focused on the SI-CO Programme, a component of the AEOP introduced by the College to promote agricultural technology in Sibalew and other barangays. This section will provide an opportunity to evaluate the issues inherent in the ‘top-down’ approach of the AEOP to promote technology in the rural barangays, particularly in Sibalew.

The College used the SI-CO Programme to train SOAs who were sent to the barangays for three months to help the local farmers improve their farming practices (AAC-AEOP Implementation Plan, 1980: 28). From 1980 until 1984, the AAC administered pilot BDLPs in six barangays of the Municipality of Banga where this College is located (AAC-AEOP Implementation Plan, 1980: 29). After this the Outreach Projects were continued in other rural barangays. This was through the SI-CO Programme of the AEOP. Two weeks’ training was provided for interested students to become SOAs so they could assist the local farmers to develop demonstration laboratory farms (AAC-AEOP Implementation Plan, 1980: 29). The College sent batches of SOAs to the six Barangay Demonstration Laboratories. The Sibalew demonstration laboratory farm was considered by the College to be the most successful at the termination of the AEOP’s funding in 1984 (Agustin, 1992: 1).33

33 The AEOP Project Paper showed that the AEOP was a bilateral project between the Government of the Philippines and the Government of the United States of America. The bilateral project agreement was made through the National Economic and Development Authority and the United States Agency for International Development in consultation with other government agencies who formulated the AEOP plan (AEOP Project Paper, 1980: Annex C).
Figure 1. AEOP Organisational Chart at the Project Management Level. AAC = Aklan Agricultural College; CSAC = Camarines Sur Agricultural College; CMU = Cebu Central Mindanao University; DSAC = Don Severino Agricultural College; PNAC = Palawan National Agricultural College; PAC = Pampanga Agricultural College; WLAC = Western Luzon Agricultural College and PIO = Project Implementing Officer (AEOP Project Paper, 1980: 21).
Figure 2. AEOP Organizational Chart at the Project Implementation Level (AEOP Project Paper, 1980: 21).
Figure 3. AEOP Communication Flow Chart (ACC-AEOP Implementation Plan, 1980: 9).
Findings from a review of the AEOP Project Paper suggested that the main objective of the AEOP was developed from modernisation theory. The proponents of this project predicted a better trained faculty; upgraded training materials; established scholarship funds and an expanded research and outreach capacity by the rural colleges that would accelerate development and improve the quality of rural life (see AEOP Project Paper, 1980: 5-6). Seven rural agricultural colleges including AAC which were sympathetic to the idea were successful recipients of the AEOP in the Philippines.34

Such a national policy was in accordance with the basic strategy of the United States Agency International Development for the Philippines. The major concern of the United States Agency International Development in assisting the Philippine Government was, first, “broadening the base of local participation in development;” second, “increasing farm production;” and third, “supporting measures to upgrade overall well-being on the part of the population” (AEOP Project Paper, 1980: 3). Further, the AEOP Project Paper maintained:

Rural institutions including colleges can play a leading role towards these goals through the creation of a more informed rural public. Of particular importance will be the presence in rural families of college-educated persons and educated women, produced by rural colleges, who are likely to have a more than proportionate role in changing attitudes and increasing receptivity to new ideas. A better educated rural population will help to increase the absorptive capacity of the population with respect to development-promoting investments. Better prepared rural colleges can play a pivotal role both as leaders and forums in the acceptance and spread of ideas and techniques. Together, people and schools can become an important foundation towards a more modern rural political structure based on response to needs rather than the traditional patron system (AEOP Project Paper, 1980: 3).

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34 A report produced by Montemayor (1986) after termination of the AEOP in 1984 showed the statistical figures of the number trained, seminars and the people who were trained through the AEOP. Montemayor (1986: 29) reported that 15 faculty members from seven colleges attended training abroad in Washington and Taiwan, while 66 attended non-degree-training courses conducted by different institutions within the Philippines. The overseas training included Initiating and Managing Integrated Rural Development Programmes in United States of America, and Vegetable Research and Development in Taiwan (Montemayor, 1986: 25). Twenty-five faculty members had obtained master degrees in various fields of study in the standard universities in the Philippines. The participants who attended training and seminars were selected from the agricultural colleges co-operating with the AEOP (Montemayor, 1986: 25). Montemayor (1986: 29) further reported that 672 participants had attended 15 seminar-workshops conducted by the AEOP. This included the 69 students, 123 farmers, 26 librarians and 454 top and middle level managers, and faculty and staff from the participating colleges.
The ‘acceptance and spread of ideas and techniques’ and a ‘more modern rural political structure’ is a discourse which failed to acknowledge whose ideas and politics the ‘traditional patron system’ was being superseded by. The use of such discourse encouraged the belief in optimistic outcomes and disseminated the ideological assumptions of the AEOP to the seven colleges, where it was transferred to the poorly educated in rural barangays.

The AEOP Project Paper suggested that the AEOP’s expectations were focused on the human and structural development of seven agricultural colleges. This suggests that the intention of the AEOP was not directly addressing the needs of the rural poor in their barangays. Instead, the AEOP focused on the structural development of the College to bring about the effective delivery of their ideological principles for the agricultural education programme, by promising a better life in rural barangays like Sibalew. Such a strategy was consistent with modernisation theory, which considered local traditional cultural practices constrained economic development.

Critics of modernisation theory claimed that the consequences of the ‘top-down’ approach when introducing development in areas of local traditional culture should not be neglected. A major criticism was the failure to understand local cultural practices (Gardner and Lewis, 1996: 15). Such an understanding was a fundamental prerequisite for success. The design, development and implementation of projects may have been more appropriate, and successful, with this hindsight. The ‘top-down’ method also ignored the political implications of growth for the micro level.

The literature suggests that because the ‘top-down’ approach ignored local cultural practices and political structure, it led to the domination, as opposed to the benefit, of the rural poor (see Gardner and Lewis, 1996; Scoones and Thompson, 1994; Holland and Blackburn, 1998; Blackburn and Holland, 1998). In the Philippines, particularly in Aklan, local farmers had limited access to education and only small amounts of land to cultivate. The farmers worked hard on their farms to earn their living. The development agencies, such as the Department of Agriculture and the Agricultural Colleges, used some of these farmers as agents to promote new technology and to disseminate agricultural information. This was part of the Integrated Development Programme described in Part One. While the introduced technology seemed appealing and attractive
to them, they failed to understand the full implications of what they were participating in. Recipient agencies (for example the Department of Agriculture, Department of Natural Resources and other agencies) also promoted the technology, as it was in their financial and social interests to do so. It also suited the purposes of the donor country.

The consequences of the 'top-down' approach were not clear or were seldom explained to those involved. Instead, in most cases experience in Aklan showed that the higher authorities viewed any problems that occurred in the implementation of the programme to be normal, an adjustment period, due to cultural differences and practices in the development process. In this context, the problems were ignored, and the detrimental effects of this impacted on the actors involved, the college staff, barangay officials and locals, and perpetuated problems that may have been otherwise resolved. The problems, such as jealousy and increased inequality within the barangay are discussed in detail in the following chapters.

In 1990, Agustin had claimed that the AEOP assisted projects in Aklan had moderate sustainability even five years after the technical, financial, and material assistance were withdrawn from the village (Agustin, 1990: xix). Agustin noted that the annual family income of the AEOP recipient farmers was far below the national annual family income in the wider Filipino society (Agustin, 1990: 59). Despite a small improvement in their economic situation, particularly in Sibalew, but in the wider context of the Philippine society, the rural people were still relatively poor.

There were criticisms in the literature on the application of the 'top-down' approach, but interviews revealed that there were good reasons why such an approach could not be dismissed out-of-hand in the implementation of the SI-CO Programme in Sibalew. In other words, the 'top-down' approach did have some redeeming features.

Interviewed college staff considered delegation of administrative power within the structural hierarchy was effectively used to control the operation of the AEOP. This was a key feature in the 'top-down' approach. It allowed for the distribution of administrative power from the senior officials accountable for the success of the implementation of the AEOP, to implement the project as they saw fit. The presidents or heads of the
participating colleges were able to take advantage of the power delegated to them in order to implement the AEOP successfully.

The $US13.967 million granted to the seven agricultural colleges to implement the AEOP was an example of the delegation of administrative power (AEOP Project Paper, 1980: 1). An Advisory Board governed the release of the AEOP funding to the seven agricultural colleges. The Advisory Board and the senior management of the AEOP had significant authority over the distribution of funds to the seven colleges throughout the Philippines. Of the total funding for the AEOP, the AAC was allotted PhP14.3 million ($US19,000.00) (AAC-AEOP Implementation Plan, 1980: 3).

The organisational structure described by Montemayor (1986) and Agustin (1990) illustrated a sophisticated and well-organised administration for the implementation of the AEOP in the seven agricultural colleges throughout the Philippines. The functions and accountability of the people involved were layered in a hierarchical manner of seniority from the highest to lowest staff in College offices, down to barangay captains and locals. Conversely, individual and collective responses and inquiries concerning implementation of the programme were channelled through lower subordinates who, to some extent, censored the data which reached the higher officials who oversaw the AEOP.

An example of this ‘top-down’ approach was the interviews with college staff involved in the implementation of the AEOP in Sibalew, which revealed that there were

35 A brief description and function of the AEOP Advisory Board was described by Agustin in his thesis: “The overall management of the AEOP was entrusted to the Ministry of Education and Culture ([MEC], now DECS) through the Project Management Office (PMO) that supervised, coordinated and monitored the implementation activities of the different project colleges and universities. The PMO received advice and directions from the AEOP Advisory Board which was composed of representatives from the DECS, the National Food and Agriculture Council (NFAC), the Office of Budget and Management (OBM), the Association of Colleges of Agriculture in the Philippines (ACAP), and the project schools. The Minister of the MECS acted as the Chairman of the Advisory Board” (Agustin, 1990: 1-2). At the institutional level in the seven agricultural colleges, Montemayor (1986: 10-1) reported: “At the institutional level, a Project Implementation Officer (PIO) heads the AEOP organization in each college. His function is at both the policy-making and ministerial levels. The ‘workhorse’ at the implementation level is the Assistant Project Implementation Officers (APIO) who coordinates all aspects of project implementation. Assisting the APIO are coordinators for research, instruction, and field training. Full-time instructor-facilitators, known as Rover Team Specialists (RTS), supervise the activities of SOAs. Each RTS is a specialist on either Crops, Animal Science, Home Technology or Farm Systems” (Montemayor, 1986: 10-1).
conflicting procedures prescribed in the Project Plan and by the College which caused some confusion for College staff and the local farmers. For example, College staff cited the delay in processing the income-generating project proposals before the AEOP Student Loan Fund Committee could get funding for the project in the barangay and the slow action from the Project Management Office of the AEOP in Manila. These delays affected implementation schedules (Agustin, 1982: 75-8). Ironically, the delay of the AEOP implementation was beneficial for the seven agricultural colleges as it provided an opportunity for other colleges to participate in the AEOP and access the grant committed by the United States Agency International Development to the AEOP to the fullest extent (Agustin, 1990: 1).

Montemayor (1986: 7) considered that the first year of operation was a ‘pre-implementation phase’ of the project. The delay of the AEOP implementation provided the College with further funding, an extra year’s support, and strengthened the SI-CO Programme in Sibalew. However, Sibalew farmers argued the two-year period from the beginning of 1983 to the end of 1984 was not enough time to realise economic benefit from the AEOP farms in their barangay.

According to the Sibalew barangay officials, this was because the Sloping Agricultural Land Technology promoted by the AEOP was for long-term projects. There was argument from the Sibalew barangays officials that the kinds of fruit trees promoted by the College for the demonstration farms also required time to mature and produce income. Sibalew officials commented that the Sloping Agricultural Land Technology was a long-term income-generating project not suitable for those farmers who needed an immediate income. The Sibalew barangay officials argued that there were problems in adapting Sloping Agricultural Land Technology to suit local conditions, particularly in view of the limited land space available for farming.

The issues and problems associated with the strategy of the Agricultural Outreach Project used by the College to promote agricultural technology in rural barangays can be examined in more detail through accounts from Sibalew locals and college staff as well as a review of the previous studies and reports written by other authors observing the project. The discussion is organised into three main areas. First, the AEOP strategy to promote the Sloping Agricultural Land Technology in the six agricultural colleges will
be described. Previous studies and reports will be examined and utilised to describe how Sloping Agricultural Land Technology was promoted in the Colleges and disseminated to rural barangays.

Second is a discussion on the SI-CO Programme introduced by the AEOP to the College to promote the Sloping Agricultural Land Technology in the rural barangays of Aklan. In this section particular attention will be given to the sociocultural, political and technical issues associated with the activities of the SOAs in Sibalew. Findings from the accounts of locals and informal discussions with college staff are integrated in this section. The main issues associated with the scheme concern the loan assistance to SOAs and farmer co-operators. The loan arrangements will be described. The final section will be a summary of the main points of the preceding discussions in this section and an analysis of the ‘top-down’ approach of the Agricultural Outreach Project.

9.4 The Introduction of the Sloping Agricultural Land Technology

This section will discuss how Sloping Agricultural Land Technology was disseminated through the agricultural colleges involved in the implementation of the AEOP. A review of the statistical reports and accounts written by other authors regarding the AEOP will be used in this discussion. This discussion is to illustrate the important contributions of such projects to the human resources and technological development of the colleges involved in the implementation. How the College developed Sloping Agricultural Land Technology and how it was promoted in the barangays is the main subject of this discussion. Issues raised by the Sibalew locals about the technology are also described in this section.

As previously discussed, one of the objectives of the AEOP was to improve the facilities of the College and the competence of the staff to conduct outreach activities in the rural barangays. This was executed through the faculty and staff development programme of the AEOP in the participating agricultural colleges. The programme included a scholarship for Masters Degrees, Non-Degree Participant Training and Seminar-Workshops. The training and seminars were done overseas and within in the Philippines. The training and seminars encouraged and nurtured the competence of the staff of the participating colleges. In particular, there was strong emphasis placed on the technical
skills needed by College staff when supervising outreach activities in their respective schools (Montemayor, 1986: 25).

Specifically, Montemayor mentioned that there were 50 students and 100 small farmers trained on Sloping Agricultural Land Technology at the Mindanao Baptist Rural Life Center in Kinuskusan. Kinuskusan is a barangay located in the Municipality of Bansalan in Davao del Sur, in the southern part of the Philippines. Another 90 students and 23 farmers had attended Woodlot Training at the Lusaran Resettlement Project in Cebu City (Montemayor, 1986: 29). The term ‘Woodlot’ describes another type of hill-farming technology for upland farmers, emphasizing the growing of trees using the contour line system of planting to produce coppices.
Figure 4. Sloping Agricultural Land Technology.
The Sloping Agricultural Land Technology and Woodlot training were performed in the early 1980s at the initial stage of implementation of the AEOP (Watson and Laquihon, 1993, 1989 and 1985).

The students and farmers who attended the training on the Sloping Agricultural Land Technology were selected from seven agricultural colleges involved in the AEOP. The authors of the project assumed that providing training to the students and farmers would increase the rate of adoption of SALT by local farmers (Montemayor, 1986: 41). It was expected that the adoption of such technology would improve the income of farmers in the upland areas. Montemayor explained:

The SALT is a modified terracing method of upland farming which uses contour lines planted to double rows of ipil-ipil which serve to retard soil and water movements and at the same time provide organic fertilizers to crops planted in between the strips. It requires minimal inputs to establish but it needs intensive labor to generate maximum benefits. It is ideal for multi-cropping of permanent and short-term crops. Animal production can be an added feature in the operation of SALT.

Montemayor (1986: 15) reported that after the fourth year of the AEOP, a total of 2,404 students who studied in agriculture and related fields had undergone SOA training through 16 rural agricultural colleges.

From those original colleges, 61 Barangay Demonstration Laboratories were established, with a total of 3,643 farmers participating as farmer co-operators with the SOAs who conducted income-generating projects (Montemayor, 1986: 17). A total of 3,413 small farmers, 2,163 rural women, 4,619 out-of-school youths and 1,031 other inhabitants, such as barangay officials, received a variety of training under the AEOP. The promotion of the Sloping Agricultural Land Technology was the focus of the training (Montemayor, 1986: 29).

After the training of the college staff, students and farmers in the Mindanao Baptist Rural Life Center at Davao del Sur, Aguilar (1985: 1) reported that the AAC developed a demonstration farm in the college campus at Banga using the Sloping Agricultural Land Technology. The purpose of the demonstration farm was for laboratory instruction of the students. Later the same year, after the first Sloping Agricultural Land Technology farm had been developed at the college campus, similar farms were introduced in Agbanawan,
Polocate, and Sigcay. These were the three barangays where the College initially promoted the technology (see Agustin 1992: 39-46). The procedures followed were based on the original AAC-AEOP Implementation Plan. The staff of the AEOP and the representative of the Aklan Agriculture College developed the Implementation Plan. A further three Barangay Demonstration Laboratories were established later in Dingle, San Isidro and Sibalew by the AEOP (AAC-AEOP Implementation Plan, 1980: 31).

Following the training manual of Sloping Agricultural Land Technology and the instruction delivered in the training at the Mindanao Baptist Rural Life Center, the College assisted local farmers to develop at least a one-hectare farm using the technology (Aguilar, 1985: 1). The landowners of Sloping Agricultural Land Technology farms or the farmer co-operators were provided with loans of three thousand pesos for working capital (Aguilar, 1985: 1). SOAs who underwent training in Sloping Agricultural Land Technology were fielded to assist the farmer co-operators to establish the technology on the demonstration farms (Aguilar, 1985: 1). The College designated supervising staff who monitored the activities of the SOAs and the farmer co-operators’ performance on the demonstration farms (AAC-AEOP Implementation Plan, 1980: 31).
Plate 7. Establishment of the SALT Demonstration Project in Sibalew in the 1980s. Upper: this photo was taken during a field trip when about fifty College students were visiting the demonstration projects. Facing the students, center, is the researcher of this thesis explaining details of the demonstration farms during his involvement in the Sibalew demonstration project. Lower: a group of local farmers from different barangays did the actual layout of the contour lines using an A-Frame. SOAs assisted local farmers (Photo: Complements of the Barangay Council of Sibalew).
Aguilar (1985: 1) reported an account given by Rameses Navarra, one of the farmer cooperators in the barangay of Agbanawan, who explained his experiences two years after he developed a one-hectare Sloping Agricultural Land Technology farm. Navarra, interviews with college staff revealed, was a participant during the Sloping Agricultural Land Technology period at the College in 1980. Before the Sloping Agricultural Land Technology was established on Navarra’s farm, Aguilar (1985: 2) explained the farm had been left uncultivated and the cogon grass had grown to reclaim the area.

After training, Navarra applied Sloping Agricultural Land Technology to his farm. He developed one hectare of demonstration farm based on the procedures of the AEOP during his training (Aguilar, 1985: 2). The contour lines were thickly planted with Ipil-ipil but Navarra trimmed them regularly. The leaves were used as fertiliser for the crops grown on the strips of land. The branches and twigs of Ipil-ipil were piled or heaped to support the terraces of his farms and helped to prevent soil erosion. Two years later, the bananas, which had been planted on the Sloping Agricultural Land Technology farm, produced income of two to three hundred (200-300) pesos a month (Aguilar, 1985: 2). The citrus and rambutan plants were growing robustly and Navarra expected them to produce within four years. Aguilar elaborated on the accounts given by Navarra:

His citrus and fruit trees are growing vigorously, and neighbors with sloping land areas are beginning to take notice and starting to apply SALT on their own but only on small areas. Mr. Navarra having only his wife to help him feels that if he has more hands to assist him in his work, he could plant more cash crops for market. Considering his 10-hectare sloping land area, he still plans to plant a half-hectare of hillside with citrus this year or early 1986 (Aguilar, 1985: 2).

Further, Aguilar (1985: 1) described in his report that three of the Sloping Agricultural Land Technology farms were used as model farms and training sites for small farmers and out-of-school-youth from different barangays. Some representatives from the office

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36 Ipil-ipil was a nitrogen-fixing tree recommended by the AEOP based on the Mindanao Baptist Rural Life Center experience at Kinuskusan, Bansalan at Davao del Sur.
of the Ministry of Agriculture and Food and the Ministry of Agrarian Reform were also trained in Sloping Agricultural Land Technology farms (Aguilar, 1985: 2).37

More recent reports by Aguilar (1990: 49) indicated that Sloping Agricultural Land Technology farms in Sibalew brought about a massive reduction in soil erosion. Aguilar claimed that the Sloping Agricultural Land Technology demonstration farms in Sibalew proved to the farmers that upland areas could be made more productive without necessarily resulting in erosion (Aguilar, 1990: 49). The report produced convincing results that the adoption of Sloping Agricultural Land Technology reduced the problem of kaingin, the traditional slash-and-burn method for upland farming in Sibalew. The Sloping Agricultural Land Technology farm in Sibalew was modified, but the principles remained based on the original technology. The multiple cropping of different kinds of short-term income producing crops, planted on the strips of the demonstration farms increased incomes (Aguilar, 1990: 49).

However, there were several issues raised by Sibalew farmers, who were trying to follow the procedures in the manual of Sloping Agricultural Land Technology produced by the AEOP. In this case study, interviews revealed that when Sloping Agricultural Land Technology was introduced in Sibalew, local farmers were very interested. Sibalew farmers mentioned the skills learned when the college staff and the SOAs demonstrated Sloping Agricultural Land Technology on their farms was an incentive for them to apply them to their farms. These skills included locating the contour lines, ploughing, staking, planting, and maintenance of the contour lines. After the training, Sibalew locals explained that there were a number of farmer-trainees who had tried to adopt the technology on their farms following the instruction manual of Sloping Agricultural Land Technology reproduced by the AEOP.

37 The summary of the numbers of beneficiaries of the College training in Sloping Agricultural Land Technology and related livelihood activities was tabulated in the report of Montemayor (1986: 18-22). The report covered the period from 1980 to 1985 and showed a total of 2,615 locals participated in the training and projects assisted by the AEOP (Montemayor, 1986: 21). This included 1,655 farmer co-operators, 153 small farmers, 494 rural women, 199 out-of-school youth and 114 other inhabitants such as local officials and transient farm workers (Montemayor, 1986: 21). A total of 257 SOAs were fielded in 7 Barangay Demonstration Laboratories (Montemayor, 1986: 21). An additional Barangay Demonstration Laboratory may have existed. Agustin (1990: 39-46) suggested that there were six Barangay Demonstration Laboratories established through AEOP, but his report extended from 1980 until 1984, whereas Montemayor (1986) covered the period 1980–1985.
Interviews with Sibalew farmers revealed controversial issues pertaining to the suitability of the Sloping Agricultural Land Technology in their local sociocultural practices. Some farmers maintained that the intensive labour needed to maintain the hedges of contour lines deterred them from adopting Sloping Agricultural Land Technology and caused delays, particularly in the rice field. Some Sibalew farmers criticised the hedges on the contour lines, claiming they had no economic value. This meant the environmental effects of Sloping Agricultural Land Technology were of little significance to some farmers.

Sibalew farmers preferred to maintain orchards with no contour hedges, and plants that could provide income in a short period of time while they concentrated their main efforts on rice farming. They acknowledged the importance of Sloping Agricultural Land Technology to improve their farming methods in upland areas. However, the Sibalew farmers argued that the technology should be modified to suit the individual farmer. The manual and the sophisticated slide presentation used to promote the technology were based on a universal application of a standard form of technology that failed to take account of vagaries within local applications.

Sibalew farmers indicated that there were some modifications to the design of Sloping Agricultural Land Technology farms in their barangay. An example was that Ipil-ipil was recommended in the manual and during the training, to plant on the contour lines, but this was replaced by the farmers with Kakawate. This leguminous plant was widely used for fences and farm boundaries. However, it tended to grow too prolifically. Sibalew farmers explained that the replacement of Ipil-ipil with Kakawate was because Ipil-ipil would not thrive in the type of soil found in their barangay. There were comments also from interviews with college staff that the types of soil in Sibalew, as well as the elevation hindered the growth of Ipil-ipil.

Another issue raised by the Sibalew farmers was the unproductive space occupied by the contour lines. Sibalew farmers considered that the use of the hedges on contour lines was of no economic value to their farming despite the prevention of soil erosion. Sibalew farmers questioned the claims made by the authors of Sloping Agricultural Land Technology. They were not convinced that the technology was suitable for small upland farmers. One reason was that although the capital costs were low, the intense labour
required for maintenance was a deterrent and the increase of nutrients was negated through the loss of land taken up by contour lines.

Sibalew farmers considered the low capital cost, and the restoration of nutrients two important advantages of Sloping Agricultural Land Technology. However, because land was becoming scarce in Sibalew, the farmers argued that they could not afford to spend a considerable part of their time maintaining the hedges of contour lines without getting a return on their labour. The shade thrown by hedges hindered the growth of plants traditionally grown in the area. Sibalew farmers claimed that the long-term adoption of Sloping Agricultural Land Technology was most likely to succeed for more affluent farmers and there was little chance for much economic benefit for farmers with limited land to cultivate.

The Sibalew farmers described conflicting perceptions held by locals concerning the expected economic return and the environmental benefits of Sloping Agricultural Land Technology farms. Cesar Ingalla, who was the Sibalew incumbent barangay captain, explained that the Sloping Agricultural Land Technology promoted to the local farmers had not stopped *kaingin*, slash-and-burn farming in their barangay. Limited areas suitable for cultivation in the lowlands, the expansion of orchards of rambutan and citrus in upland areas, and the demand for land to cultivate by families who had returned from Manila were reasons presented by farmers for the perpetuation of *kaingin* in Sibalew.

In general, according to Ingalla, the continuation of *kaingin* was because many local farmers did not have access to lowland areas. Farmers cultivated the upland area to plant rice for their subsistence. Sloping Agricultural Land Technology was introduced to deter *kaingin* in order to increase the income of upland farming. Culturally, Ingalla argued, Sloping Agricultural Land Technology was not compatible with the traditional concept of *kaingin* as perceived by the farmers in Sibalew (see Claydon, 1998: Claydon and Dela Cruz, 1988).

This finding was duplicated by Kim Claydon (1998: 127-131), a foreign volunteer from the Voluntary Service Overseas assigned to the College, who examined the adoption of the Sloping Agricultural Land Technology in the College extension-serviced barangays. Claydon reported that some farmers undertook Sloping Agricultural Land Technology
with fruit trees as the permanent crops. Other farmers planted fruit trees without using Sloping Agricultural Land Technology. Those farmers who used Sloping Agricultural Land Technology removed the contour lines once the fruit trees were established, Claydon discovered from interviews with farmers and college staff (Claydon, 1998: 130).

Claydon described some of the major reasons why farmers disliked the contour hedges. She questioned the actors involved on how the effectiveness of the College could be improved in current and future extension services:

It seems that while ASCA-ERDSC is keen to promote SALT as a sustainable technology as part of its current SA [Sustainable Agriculture] programs of composting, Integrated Pest Management and organic farming, the farmers are not cooperating. While interested in these methods, farmers seem to use what is most suitable to them. Open field orchards need less maintenance than terraced orchards with contour hedges, and increase overall productivity and profitability of the fruit trees. Thus the department either needs to find other ways of passing information to farmers, or it needs to work with farmers and establish something sustainable that meets their needs (Claydon, 1998: 130).

Claydon suggested that to help farmers increase their income it was important for the College to “rethink” their programme to promote Sloping Agricultural Land Technology along with other technology suitable for the needs of local farmers (Claydon, 1998: 131).

This section has discussed how the Sloping Agricultural Land Technology was promoted to the seven participating colleges in the AEOP through training and seminars. The training was started at the Mindanao Baptist Rural Life Center where Sloping Agricultural Land Technology originated. A huge number of college staff, students and local farmers were trained at the Mindanao Baptist Rural Life Center. The assumption was that providing training and manuals would increase the rate of adoption of Sloping Agricultural Land Technology.

After the training, the College initially established a Sloping Agricultural Land Technology demonstration farm at the school campus. This was used to provide instruction to the students during their laboratory. Subsequently, after the demonstration farm was developed at the school campus, other farms using Sloping Agricultural Land Technology were installed in the three barangays near the College. These three demonstration farms were used for the training of local farmers and the out-of-school youth from different barangays. The training was based on the standard procedures
contained in the manual of Sloping Agricultural Land Technology reproduced through the funding of the AEOP. Later, after Sloping Agricultural Land Technology training at the College, some trainee-participants conducted trials of the technology in their barangays.

Despite acknowledging the advantages of the Sloping Agricultural Land Technology as described in the manual, there were problems raised by the Sibalew farmers. However, previous reports were inconsistent in this respect. After the termination of funding through the AEOP there were problems. Sibalew farmers were reluctant to continue using the contour hedges in Sloping Agricultural Land Technology.

Sibalew farmers identified four major problems in the adoption of the technology in their barangay. First, the intensity of labour required to maintain the contour hedges concerned farmers. Second, due to the higher acidity of the soil, the unsuitability of *Ipil-ipil*, prescribed by the AEOP in Sibalew, needed addressing. Third, the space occupied by the contour line plantings reduced the available productive area of the farms.

Finally, the Sibalew farmers were confused over the expected economic return and the environmental benefits of Sloping Agricultural Land Technology farms. Similar views were expressed by Claydon, from Voluntary Service Overseas who suggested questions needed to be answered by farmers, college staff and other actors together to improve the effectiveness of the College’s extension initiatives. Some answers given by the Sibalew farmers were presented in this section.

**9.5 The Student Internship and Loan Assistance in Sibalew**

This section is a discussion of the Student Internship introduced by the AEOP to the AAC curriculum as an option for the thesis requirement for the students to attain a college degree. There will be a description and discussion of the Implementation Plan produced by the staff of the AEOP and representatives of the College for the Student Internship in the Barangay Demonstration Laboratories, particularly in Sibalew.

A review of the previous studies and reports regarding the SOA internship will also be included in the discussion. The discussion will identify the sociocultural, institutional,
political and technical issues that affected Sibalew locals, and the strategy promoted by the AEOP in the College. The loan assistance and the complexities associated with the SOAs' financial requirements in the income-generating project are discussed. Particular attention will be given to the integrity of the SOAs who helped the local farmers establish income-generating projects.

The AAC-AEOP Implementation Plan (1980: 25-37) outlined the two phases of training the College needed to field SOAs in the Barangay Demonstration Laboratories. The first phase, the ‘on-campus-training programme’ was conducted in the College, while the second phase, the ‘off-campus outreach programme’ was conducted in the Barangay Demonstration Laboratories (AAC-AEOP Implementation Plan, 1980: 25). The activities included the college staff and the SOAs.

The main purpose of the on campus training was to train “the student to become “change agents” for the improvement of the quality of life of small farmers, out of school youth, rural women and other rural inhabitants” (AAC-AEOP Implementation Plan, 1980: 27). The training was conducted in the College with two major activities. The first activity was that the SOAs underwent a two-week orientation concerning their internship in the barangay (AAC-AEOP Implementation Plan, 1980: 27). This included a series of lectures and practical works by student agents in plant propagation, organic gardening, rice production, orchard plantation, and animal husbandry. Socialization and other

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38 The first phase of the on-campus-training program was divided into three distinct stages. The first stage was the production of outreach materials (AAC-AEOP Implementation Plan, 1980: 25). This included the upgrading of the horticultural nursery and animal stocks existing in the College, the rebuilding of structural facilities, and the collection of new plant varieties to propagate in the nursery. Highly regarded breeds of animal stock, cows, goats, geese, turkey and chicken were obtained and bred in the livestock projects in the College. The propagation of plants and the tending of animals were integrated into the student laboratory activities in agriculture. The seedlings and young animals produced were later transferred from the College to the local farmers through the SOAs fielded in the Barangay Demonstration Laboratories (AAC-AEOP Implementation Plan, 1980: 26). The second stage of the on-campus-training program was the preparation of training materials (AAC-AEOP Implementation Plan, 1980: 25). The college faculty-members were directed to prepare modules and reproduce manuals and guidelines. The College area coordinators for instruction, research, extension and training were involved in the preparation of the guidelines. Five members of the College staff who were specialists in various fields were also involved in the preparation of the modules. These five had special interests in “animal science, crop science, rural sociology, cottage industry, community development, health, sanitation and family planning” (in AAC-AEOP Implementation Plan, 1980: 3). Approaches and strategies in the organisation of the integrated barangay organisational structure, sociocultural and agro-industrial development, and cooperative development were the main topics of the modules. Subject areas covered were outlined briefly in the AAC-AEOP Implementation Plan (1980: 27). The third and last stage of the on-campus-training program was the training of the SOAs.
activities to prepare the SOAs for their extension activities were included in the training. The second activity was field trips which consisted of an initial visit to the farmer co-operators to meet the farmer's family and to observe the farmer's practical work. Assignments in the barangay were included at this stage of training.

When the students completed in-campus training, this was followed by the second stage, the Student Internship in the barangay. This was for a period of three months conducting on-the-job field service practices. The SOAs were fielded in the Barangay Demonstration Laboratories (AAC-AEOP Implementation Plan, 1980: 28). SOAs stayed with the family of their farmer co-operators throughout the entire period of their on-the-job field service practice. The SOAs paid board and shared the household expenses as agreed with the farmer co-operators. SOAs stayed with their farmer co-operators during the weekend, but on weekdays the students attended regular classes held in the College (AAC-AEOP Implementation Plan, 1980: 28). The SOAs worked together with their farmer co-operators to develop income-generating projects. Some SOAs conducted general extension activities in the barangay (Montemayor, 1986: 13).

Montemayor stated that those SOAs who had majored in crops, animal science and farm management should conduct income-generating projects, while those students who had majored in agricultural education and extension, should conduct the general extension activities. The latter conducted the training of farmers, out-of-school youth, and rural women on leadership, cooperatives, homemaking, nutrition and family planning, health and sanitation (Montemayor, 1986: 13). The activities of SOAs were supervised and monitored by staff assigned by the College as advisers to the students (AAC-AEOP Implementation Plan, 1980: 35).

After three months of 'on-the-job field service,' the SOAs were given a two-week period of "post field service practice" (AAC-AEOP Implementation Plan, 1980: 27). This included evaluation and reporting on activities conducted by the SOAs in the barangay. Each SOA wrote outreach reports describing their experiences in their income-generating projects, extension activities and the problems encountered throughout the three months of on-the-job field service in the barangay. The outreach reports, similar to the standard college thesis, were examined and graded by a technical committee composed of the
training team who had supervised the Student Outreach throughout the period of the Student Internship (Montemayor, 1986: 15).

A review of the _AAC-AEOP Implementation Plan_ (1980: 17-18) showed that the Student Loan Fund was granted by the AEOP to the College. The fund was to finance the SOAs and the farmer co-operators who conducted income-generating projects. In the plan, the Student Loan Fund scheme was not to exceed five thousand pesos. The SOAs and farmer co-operators were required to supply an income-generating project proposal in order to fulfil the conditions for the loan. The SOAs, together with their farmer co-operators, prepared the income generating project proposal with the assistance of their college advisor (_AAC-AEOP Implementation Plan_, 1980: 20-21).

The SOAs were responsible and accountable for the loan to finance materials and other necessities for the income-generating project (Montemayor, 1986: 14). On their part, the farmer co-operators were the co-recipients of the loans, offered free use of their land, provided accommodation for the SOAs, and provided animals such as buffaloes or cattle for ploughing and harrowing to start the income-generating project. Both SOAs and farmer co-operators provided labour on the income-generating projects, and the profit from the venture was shared according to a signed agreement (Montemayor, 1986: 14).

The loans were also extended for the students who needed financial assistance for school needs like tuition fees and costs incurred in the production of their theses (Montemayor, 1986: 17). The guidelines on the loan scheme regarding the repayment of loans were formulated by the Project Management Officer who controlled the management of the implementation of the AEOP in the participating colleges (Montemayor, 1986: 23).

Montemayor (1986: 14) cited the Central Mindanao University, a recipient of the AEOP, as one of the Universities to implement the Student Loan Fund in their region. He maintained that the University required the farmer to deposit his/her shared income from the project into a bank to generate capital for re-investment. From the same University, Montemayor noted that earnings from the initial corn projects were more than enough to finance the next cropping (Montemayor, 1986: 15). The AAC had similar practices in their region.
FLOW CHART OF THE STUDENT INTERNSHIP-COLLEGE OUTREACH

Organisation of SI-CO Committee and RTS

Identification of BDLs and Farmer Co-operator

Identification and Selection of Student-Interns

Orientation Training for Selected Students and Farmer Co-operators

Pre-field Training and Preparation of Students

Fielding of Students to BDLs

S O A Conduct Farm Project/Income-Generating Project

RTS Supervise Students

S O A Conduct General Extension Work

Composed of:
1. Coordinators (Instructors, Extension, Research and Auxiliary Services)
2. Rover Team Specialist on any of the following:
   (a) Animal Science
   (b) Crop Science
   (c) Home Technology

Submits Regular Monitoring Reports of Activities of Student to SI-CO Committee for Evaluation

Training Output:
1. Project Feasibility Study Farm/Income-Generating Project.
2. Design a Training Program for a Demonstration Activity with a package of Technology.

Figure 5. The AEOP Flow Chart for Student Internship-College Outreach (Montemayor, 1986: 16).
Figure 6. AAC-AEOP Schematic Diagram on the Implementation of Student Scholarship/Loan of Income-Generating Project: (1) SAO identifies member of BDL and conceptualizes a specific income-generating/demonstration project; (2) BDL Instructors assist in the refinement of the conceptualized feasibility/project study preparation and other activities from the start to the termination of the projects; (3) Student applies for loan with the assistance of BDL Instructors to the Committee on the Student Scholarship/Loan; (4) Ad hoc Committee processes and appraises loan and endorses it to PIO for approval; (5) PIO approves loan and endorses the same to the Administrative Staff for release of funds; (6) Release of fund in two or three installments; (7) BDL Instructors monitor progress of the project to PIO; (8) Implement project, subsequent release of fund may be withheld to ensure correct implementation of loans; (9) Loan Repayment and (10) Coordination (ACC-AEOP Implementation Plan, 1980: 19).
Besides the practices described by Montemayor, a review of the AAC-AEOP Implementation Plan (1980: 18) indicated that the College could provide a total of three separate loans to the students after the repayment of the original loan. The amounts available varied depending on the types of income-generating projects. However, the College loans were limited to a maximum of five thousands pesos. The first loan was extended without interest, the second was charged 7% interest per year and the third and final loan was charged at 12 percent (AAC-AEOP Implementation Plan, 1980: 18).

The college staffs assigned as an adviser to the SOAs was deemed the guarantor of the loans authenticated by a practising lawyer recommended by the College. The processing of the loans followed the prescribed accounting and auditing procedures of the College. The SOAs processed the income-generating project proposals and forwarded them to the College Student Loan Committee. The College released the loan with a joint affidavit of repayment signed by both the SOAs and their assigned farmer co-operators. The SOAs attended to subsequent administrative matters until the loans were granted (AAC-AEOP Implementation Plan, 1980: 20).

A study by Quintana (1989: 89-90) in Sibalew included an examination of the credit procedure. Quintana examined the source of credit and the amount and frequency of credits granted to Sibalew farmers. Quintana contended that the Student Loan Fund, Rural Banks, private moneylenders, friends and relatives were the main sources of credit for Sibalew farmers. Of 41 Sibalew farmers Quintana investigated, 25 had loans from the Student Loan Fund, 3 had loans from Rural Banks, 4 had loans from private moneylenders and 10 borrowed money from their friends and relatives (Quintana, 1989: 89). Quintana indicated that the maximum amount of credit was PhP3,000.00. The majority of loans came from the College Student Loan Fund. Quintana reported that 16 Sibalew farmers had applied for loans three times (Quintana, 1989: 90). Quintana found that farmers engaged in rice production, bananas and citrus orchards and livestock income-generating projects were more likely to be the recipients of three consecutive loans.

Quintana’s findings disclosed that the loan assistance available from the Student Loan Fund of the AEOP–AAC did prove to be an effective mechanism for the College to disseminate technology. At the same time, the loan created an opportunity for Sibalew
farmers to adopt the introduced technology. Quintana’s main conclusion was that the AEOP had generally achieved all of the stated objectives of the student internship. The student loan fund component had assisted the Sibalew farmers (Quintana, 1989: 104). Two main recommendations were emphasised by Quintana to further improve the College outreach programmes:

[First] ...while the AEOP has enhanced the effectiveness, credibility, and development efforts of the college which is the implementing arm of the AEOP, these should be maintained so that as implementor of such rural development project, it could build up its capability to implement other projects of [a] similar nature. [Second] ...to carry out a continuous cycle of productivity, the implementors should consider the effect of external factors, such as unstable market outlets, fluctuating price of produce and high cost of chemicals because no amount of rural development expertise can solve these problems which are subtly and arbitrarily dictated by external economic pressures and political atmosphere in the community (Quintana 1989: 106-107).

Consistent with the endorsement by Quintana was the report produced by Aguilar (1990: 48). Aguilar disclosed that the AEOP-AAC programme implemented from 1980-1984 was instrumental in the development and the transformation that occurred in Sibalew. He mentioned that the 14 million pesos ($US191 thousand) grant from AEOP improved the effectiveness of the College in serving the rural poor (Aguilar, 1990: 48). The amount of funding increased the effectiveness of the programme when other government extension agencies were underfunded and ineffective. The upgraded school facilities, the new library, books and other reference material had improved the instruction, extension and research capability of the College (Aguilar, 1994: 17-22). School dormitories, with a cafeteria and training center and new school income-generating projects, such as piggeries and henhouses, were constructed. Aguilar further explained:

The integration of the Student Internship College Outreach Program component in the baccalaureate courses of the college afforded it the chance of harnessing the students to effectively transfer indigenous technologies from the school to the barangays. Certain barangays such as Sibalew were identified for development by the college. These barangays known as Barangay Demonstration Laboratories (BDLs) were assigned Student Outreach Agents (SOAs) with a BDL instructor to supervise and closely monitor the activities of the SOAs. From the Student Loan Fund, a component of the AEOP-AAC, the farmers were able to avail themselves of loans which they used in starting their Income Generating Projects (IGPs) (Aguilar, 1990: 48).

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39 There was an exchange rate of US$1=7.00 pesos in 1979 (AEOP Project Paper, 1980: 21).
Accounts from the Sibalew locals confirmed findings by Quintana (1989), Aguilar (1994 and 1990) and Montemayor (1986). Sibalew locals acknowledged that the initiation of the internship of the SOAs in Sibalew brought changes to the economic, sociocultural, political and agricultural practices in their barangay. Locals explained that the agricultural development introduced by the College through the SOAs improved morale and economic conditions in their barangay. Their attitude, the Sibalew locals said, was reinforced when the College recognised that Sibalew was the most successful of the six barangays where the AEOP had been introduced in the 1980s.

However, Sibalew officials argued that there were issues involving sociocultural practices. For example, there were significant power imbalances in the institutional structures and procedures that existed between the college staff and the locals at the early stage of hosting the SOAs in their barangay in 1983. Jose Ingalla, the former barangay captain, also recalled that his officials, as well as the local people, encountered some problems when the first groups of SOAs were posted in the barangay. Ingalla explained that in that same year, the major cultural issue during the early stage of implementation of SOAs internship in Sibalew was the matching of local traditional sociocultural practices with bureaucratic procedures in the execution of the SOAs internship in the barangay. Ingalla argued that Sibalew locals were interested in learning the technology so they could generate a higher income from farming. On the other hand, the College was interested in ensuring the success of the SOAs internship. In particular, there was a need for conformity and compromise between the two parties, explained Ingalla. He said that the barangay officials and the college officials had agreed to work closely with locals to assist the implementation of the SOAs internship properly in order to fulfil the objectives of the AEOP and ensure its success.

Ingalla claimed that the unity and commitment of his officials strengthened their relationship with the College and brought success to the implementation of the Student Internship of the Outreach Agents in Sibalew. Ingalla explained that his officials worked closely to improve the locals’ awareness of the policy of the College and the objectives of the SOAs internship in their barangay. Ingalla claimed that their work included organising locals to attend seminars conducted by the college extension staff. There was some degree of socialisation involved that was necessary for the participation of barangay officials, locals and extension staff. Ingalla recalled that the barangay fiesta
was an example of this. The barangay officials, locals and the extension staff participated in various events in the course of the fiesta. SOAs voluntarily took responsibility to help in the preparation of the cultural programmes. Their activities also extended to selling tickets for local fund-raising events. Some SOAs trained children in folk and modern dancing for cultural shows. The SOAs also participated in local sporting activities like the barangay basketball tournament. Ingalla noted that through such sociocultural activities both the locals and college extension staff became more acquainted with each other. At the same time, Sibalew locals were becoming familiar with specific characteristics of the college extension staff. The college extension staff, in turn, learned the traditional values and social practices of the Sibalew locals.

Ingalla explained that the social interaction of locals with college staff was an initial move toward developing a common *modus operandi* when the SOAs were living in Sibalew. Ingalla noted that cultural adjustment between the locals, SOAs and the College staff would be a continuous process that needed time. In particular, some compromises were needed between the local traditional social practices and the regulation of the College policy that guided the extension activities of the SOAs and extension staff. The transition period, according to Ingalla, was a time when many controversies manifested themselves, but many issues were not given the attention that was required to address them fully. Ingalla insisted that the higher officials of the AEOP viewed the controversies as natural and that minor problems were experienced everywhere in the early stages of development. The problems were acknowledged, legitimised and dismissed in the report compiled by Montemayor, the AEOP Manager, who considered "that the first year of operation was actually a pre-implementation phase" (Montemayor, 1986: 7).

Relating to the claim made by Montemayor described above, Ingalla explained that one major problem he noted was that the higher officials involved in the development projects failed to acknowledge the issue of inequality that was created when introducing projects in the barangay. He explained that this was due to limited funding and the unavailability of resources from the Government of the Philippines to provide for the needs demanded by locals in any particular barangay. The higher officials, planners and politicians tended to focus their attention on assisting selected locals whom they assumed could be instrumental in the development. An example was the barangay officials who,
some locals believed, received preferential treatment, especially in the farmer co-operator selection process. Ingalla insisted that the issue of inequality brought about by the development projects created an adverse social environment amongst the locals. Such an issue must be addressed at the early stage of implementation. Ignoring such issues, Ingalla argued, would mean creating coercion in development. This would negatively affect the social relationships between locals in the barangay. Ingalla cited his own experience in Sibalew.

Ingalla insisted that jealousy was one of the major social problems he and his officials had detected when the first group of SOAs was sent to their barangay. Ingalla noted that jealousy occurred between families who had SOAs and families who did not. The stealing of newly planted seedlings and grazing of animals on the income-generating plots were two examples of the manifestation of jealousy reported by the Sibalew farmer co-operators. Ingalla explained that the intensity of such underhand activities of some locals increased when the majority of the population learned that the College provided assistance to the families who had the SOAs. Ingalla explained there were three main reasons for this human reaction. First, there were misinterpretations of the purpose of the internship of SOAs in the barangays. Some locals considered SOAs as free labour to develop selected farms. Second, some locals thought that the SOAs were the easiest means to get loan assistance and planting materials, seeds and seedling plants from the College. Third, according to Ingalla, was the biased selection process of farmer co-operators. The SOAs stayed and worked to establish their income-generating projects on those farmer co-operators' lands. Ingalla recalled these activities were reduced when the College continuously fielded the SOAs in Sibalew. The establishment of the Barangay Resource Center, where SOAs were hosted to stay while they completed their internships also minimised the jealousy that surrounded the students' activities in Sibalew.

Another issue associated with the early stage of the internship of the SOAs in Sibalew was that some locals alleged that the selection of farmer co-operators was subjective and biased. Interviews with Sibalew barangay officials revealed this allegation was reasonably accurate because of the limited number of SOAs who were hosted. There were more farmers than SOAs. Jose Ingalla, the barangay captain, acknowledged that the selection process was biased and subject to the interests of barangay officials and the criteria determined by the College. Ingalla explained that the barangay officials, himself
included, were the first to receive SOAs fielded in Sibalew. Barangay officials identified some farmers based on criteria prescribed in *AAC-AEOP Implementation Plan* (1980: 32) and endorsed the names of potential candidates presented to the College. The *AAC-AEOP Implementation Plan* indicated:

The landowner must be willing to lend the area for a period of time to be specified by the AAC-AEOP. He (owner) must likewise be willing to act or become [an] owner-manager of the project. ... All inputs such as labor, materials, technical supervision and management shall be jointly borne by the landowner and the ACC-AEOP. Labor and management may be supplied by the landowner while the technical supervision and some materials will be supplied by [the] AEOP, with the cost of materials to be paid back from the income of the project by the farmer co-operator in installments and without interest (*AAC-AEOP Implementation Plan*, 1980: 32).

College staff interviewed justified the method of selection, and maintained that the privileges offered to the barangay officials were made in the long-term best interests of the project. The barangay officials, if their preferred candidates were chosen as farmer co-operators, would then be likely to provide whatever assistance they could to ensure the success of the income-generating projects introduced by the SOAs. For this reason, the college staff mentioned in the early stages of the internship that the SOAs needed to ensure the viability of the income-generating projects in the barangay with the support of barangay officials. Jose Ingalla, the former barangay captain, also explained that barangay officials had binding obligations to the locals who elected them. Therefore, Ingalla reiterated that the barangay officials were instruments to encourage the active participation of locals, for the success of the Student Internship programme in their barangay.

At the College, interviewed staff commented on the internship of the SOAs in Sibalew. Of concern was the delay in the repayment of loans from the College’s Student Loan Fund. Some staff members claimed that the SOAs and farmer co-operators delayed paying back the loan. The repayment was made through deductions from the salary of the staff who was the guarantor of the loan. Such a mechanism, the college staff explained, was a precautionary measure by the College. It was an effective approach for complying with the policy prescribed by the members of the Student Loan Fund Committee who released loans and supervised repayments.
The college staff contended that such a precautionary measure by the Student Loan Fund Committee was to the advantage of the College. The strategy improved the collection of loan repayments. College staff also mentioned that the scheme enhanced the College's effectiveness to implement Loan Fund assistance from the AEOP. Consequently, the college staff argued that deducting part of the salary of the guarantors created an economic burden for their families. The interviews revealed that the SOAs and farmer co-operators had also repaid monies owing to the guarantor. However, the loan was paid to the guarantor through instalments over several months until the payment was completed.

The college staff acknowledged that the delay of loan repayments was attributed to various factors beyond the control of the SOAs and the farmer co-operators. The detrimental effect of typhoons and droughts on the income-generating projects as well as plant damage caused by stray animals, were examples. College staff explained that after graduation some students went to other places to find jobs. A year later they would return to the College where they paid back the loan in order to obtain their diplomas. The college staff also noted traditional social customs brought considerable economic distress to the local families through social events, extravagant spending during fiestas, family reunions and other social events. As a consequence, the repayment of loans was deferred. The Sibalew barangay officials criticised local families over excessive spending on fiestas. Such behaviour affected the family budget. However, Cesar Ingalla, the Sibalew incumbent barangay captain, argued that the fiesta was not the only excuse for delays in the repayment of loans. He said that some local farmers diverted funds to buy household needs and personal necessities. Others were obliged to use money for medication when illness afflicted family members. According to Ingalla, such issues were common problems in the 1970s.

However, Ingalla stressed that in the 1980s the attitude of Sibalew locals toward loans had changed. He maintained that most of the Sibalew farmers were hesitant to apply to the bank for loans because of the requirements and the time involved in processing. But when it came to the internship of SOAs, Ingalla noted that the farmer co-operators were encouraged to apply for loans from the Student Loan Fund of the College to finance their projects. The SOAs and extension staff who were guarantors motivated the farmer co-
operators and many were able to acquire loans and use them to enhance and expand the income-generating projects in Sibalew.

Group discussions with Sibalew locals reconfirmed that stealing newly planted plants and grazing of animals on the income-generating projects were the major issues when the first group of SOAs was sent to their barangay. The successive posting of SOAs to work with other farmer co-operators reduced the level of jealousy, as Sibalew locals recognised the important contribution of the SOAs in their barangay. The technology developed for the income-generating projects left by SOAs improved the farmer co-operators' technical skills, making farmers more effective and increasing their income accordingly. However, Sibalew locals argued that the development and improvement of their income was not fully realised in their barangay in the period when the funding of the AEOPs ceased in 1984.

Group discussions with Sibalew locals revealed that farmers questioned the technical competence of the SOAs. The doubts generated amongst the farmers hindered the transfer of technology. Sibalew locals explained that there were farmer co-operators who resisted and questioned the viability of some income-generating projects introduced to them by the SOAs. Locals claimed Sibalew farmers wanted to maintain their local knowledge and experience. Many farmers insisted that they had better farming knowledge than the theory and skills learned by the SOAs in the College. The two-week training course undertaken by the SOAs was not enough preparation for the students. Locals suggested that the SOAs had difficulties convincing the farmer co-operators of the merits of the income-generating projects, in particular, those projects involving substantial capital and intense labour as found in the production of livestock.

However, because of the loans and free technical assistance extended by the College through the SOAs, Sibalew locals explained, the farmer co-operators did not have any alternative. Farmer co-operators acknowledged ideas from the SOAs. They knew that the students had access to assistance from the College. Both parties together identified an appropriate income-generating project where the new technology could be tried out.

Further, Sibalew locals suggested that different interests existed between SOAs and farmer co-operators. Sibalew locals noted that differences occurred when decisions were
made on the establishment of income-generating projects. Locals explained that the SOAs' concern over the income-generating projects was to complete their on-the-job field service in Sibalew. On other hand, locals argued, farmer co-operators were interested in the long-term economic return of the projects. These different interests, Sibalew locals felt, could cast doubts on the integrity of SOAs.

This section discussed the Student Internship introduced by the AEOP to the College curriculum to provide students with an option for their thesis requirement to attain a degree. There were two phases of training to implement the Student Internship. The first was held on-campus with staff and students. The College produced outreach materials and prepared training materials. The College conducted two weeks training for on-the-job field service in the barangays. Approaches and techniques in extension, as well as training in community development were the main subject areas. The training was to prepare the students to become 'change agents' who could assist the farmer co-operators establish income-generating projects on their farms.

Thereafter, the SOAs were fielded in the Barangay Demonstration Laboratories and stayed with the farmer co-operators on weekends. SOAs lived as a member of the farmer co-operator's family but paid board and shared household expenses. On weekdays the SOAs reported to the College. In the barangays, the SOAs and their farmer co-operators established the income-generating projects. The Student Loan Fund, a grant from the AEOP to the College, funded income-generating projects.

The conditions for SOAs and their farmer co-operators to obtain loans were described, as was the implementation plan. An income-generating project proposal prepared by SOAs and farmer co-operators was the major requirement to obtain a loan from the Student Loan Fund. The College extended loans a maximum of three times after the repayment of the first loan. College staff assigned as advisers of SOAs acted as guarantors. The SOAs attended to the requirements of the loan and the processing until the loans were granted.

A review of previous studies and reports on the AEOP in Sibalew was discussed. Quintana in 1990 indicated that the Student Loan Fund, the Rural Banks, private moneylenders, friends and relatives were the main source of credit for Sibalew farmers. However, the Student Loan Fund was the most popular. The study revealed that out of
Aguilar (1994 and 1990) supported Quintana in confirming that the AEOP introduced in 1980-1984 to the AAC led to the development and the transformation of Sibalew. The AEOP had upgraded College facilities. Significantly, numbers of College faculty and staff were trained and educationally improved through the AEOP.

The improved effectiveness of College instruction, research and extension initiatives promoted sociocultural, economic and technical expertise as well as political development in the rural barangays. Sibalew locals acknowledged the College brought 'changes' to their barangays through the Student Internship and the Student Loan Fund assistance. Changes included local living conditions, sociocultural practices, the sensitivity of locals to politics, and the development of agricultural production.

However, there were some arguments and criticisms from Sibalew locals. There were interrelated issues concerning sociocultural, institutional, political and technical changes. Jealousy over the subjective selection of farmer co-operators was a problem in the early stages of implementation of the Student Internship in Sibalew. The key role of barangay officials was discussed. The barangay officials played a significant role in lessening local doubts and misinterpretations of the purpose of the SOAs' internship in the barangays. The College acknowledged the Sibalew officials' long-term best interests for the development of their barangay. That was the basis for the College to select and give priority to officials to support the technology introduced in the income-generating projects.

Loan assistance was provided to SOAs and farmers to experiment with and verify the efficiency of the technology introduced in the income-generating projects. Delayed repayment of loans led to precautionary measures by the College. The staff guarantor was paid but it took several months. Factors beyond the control of the SOAs and farmer co-operators caused delays of repayments, as did typhoons, droughts and stray animals. The extravagant spending during fiestas and other social events also contributed to the
delay. Sometimes the money intended for loan repayments was instead spent on household needs, personal necessities and medication.

Overall, the internship of the SOAs and the Student Loan Fund from the College helped the Sibalew farmers establish income-generating projects. However, there were interrelated social, cultural and political issues that surrounded the implementation of such assistance in Sibalew that needed to be addressed. These issues related to the implementation of the student internship and loan assistance. Different interests between the actors created doubts in the minds of locals as to the importance of income-generating projects. These issues affected the credibility of SOAs in promoting a particular project in the barangays.

9.6 The Foundation for Youth Development in the Philippines

This section is a review of the historical development of the FYDP. The involvement of the FYDP in the development of Sibalew is the main focus of this discussion. The FYDP was a non-profit and non-stock organisation that helped the College implement non-formal education programmes in the barangays. The FYDP was established in 1966 through Geronima T. Pecson, the first female senator in the Republic of the Philippines (see ASCA-ERDSC, 1993: 4-5). The main objective of the FYDP was to train and assist out-of-school youth, young adults and rural women. Through their training, it was assumed that they would develop into “young citizen producers” for Filipino society (Flores and Sta. Maria, 1983: 1). The College, through this FYDP, operated non-formal education programmes from 1977 (Quintana, 1982: 3). These programmes continue to the present day and are part of the regular non-formal education programme of the College.  

Flores (1981: 21, also cited in Quintana, 1982: 3) described the historical development of the FYDP. The FYDP was institutionalised in 1974 in the four colleges throughout the country. The Ministry of Education and Culture, now known as the Department of Education of Culture and Sports, was instrumental in the institutionalisation (Quintana, 1982: 3). In 1974, the FYDP started in the Central Luzon Teachers College in Bayombong, Pagasinan. In 1976, the FYDP opened at the Camarines Sur Agricultural College in Pili, Camarines Sur. The AAC in Banga was selected in 1977. Finally, in 1978 the Southern Samar Agricultural College in Salcedo, Samar, started to operate the FYDP’s programmes in their region (Quintana, 1982: 3). These colleges were the original implementers of the program and were known as the Education Centers for Young Citizen Producers in their regions.
Short-term skills training courses operated through the Education Centers for Young Citizen Producers established in the four Colleges. The training included courses in vocational and agricultural production. Carpentry, furniture making, radio-electronic repairs, food processing, cosmetology, tailoring and dressmaking were the vocational courses available. Later courses included vegetable and livestock production, such as organic gardening and animal raising. Plant propagation and nursery management, orchard establishment, piña fiber production, fiber processing and piña cloth weaving were included in the agricultural courses. Courses related to the fishing industry, such as inland fish cultures and crab fattening, were included in the training.

One course was completed in 120 hours. The training varied depending on the requirements requested by the participants or on the prescription local officials submitted to the College. The Educators’ main activities were organising the participants with the co-ordination of barangay officials and conducting the training. The vocational and agricultural courses were supplemented by exercises emphasizing life skills. Subjects included health and sanitation, home and family wellbeing, community improvement and citizenship. The FYDP expected that once the training was completed, the individuals would be conscious of the awareness and skills that had changed them into agents of development within their homes and communities (Flores and Sta. Maria, 1983: 1).

In the College, the Education Centers for Young Citizen Producers short-term skill training courses were split into two types of programmes. There were the ‘Regular’ and the ‘Special fund’ Programmes. Flores and Sta. Maria (1983: 1) claimed that under the Regular Programme, the main office of the FYDP in Manila sent funds annually to the College. The source of the funds was the Trust Fund and fund campaigns in different sectors (Flores and Sta. Maria, 1983: 1). The fund provided by the FYDP helped the College to employ the trainers or educators who conducted the training of out-of-school youth in their own barangay. The ‘Special fund’ Programmes had similar objectives, but were funded directly by the FYDP. The College solicited funding from various sectors for the latter programme. This included donations for the different projects, either from the government, the private sector or individuals. Other government agencies, through special projects in rural development, also donated funds to the College for training. These included the Department of Agriculture, and the Provincial and Local Governments. In some cases, there were businessmen and politicians who directly
sponsored the salaries of educators from the College when they conducted training to the out-of-school youth in their respective localities. Such strategies strengthened the College’s implementation of the six general objectives of FYDP. Quintana (1982: 4) describes these objectives in her thesis:

First, to enable out-of-school youth, in the prime ages of 15 to 35, to become economically productive and thereby help to support themselves, their families and communities. Second, to demonstrate the use of functional education of out-of-school youth or OSY in community development. Third, to assist selected communities to make a “head start” in solving their own problems. Fourth, to enable selected OSYs to acquire skills relevant to their individual and community needs. Fifth, to mobilize trained OSYs in the development of their own communities; and finally, to encourage total community development (leaders and constituents) in production-oriented activities within the overall plan of community development (Quintana, 1982: 4).

The two types of programmes mentioned above and promoted by the FYDP to the College also improved the non-formal education programme of the College. Accounts from the college staff revealed that thousands of local farmers, out-of-school youth, young adults and rural women were trained. The college staff contended that the College utilised the FYDP to initiate and open new livelihood projects in the barangays, particularly in Feliciano and Linayasan. The FYDP conducted training in Sibalew when the AEOP operated there in 1983. Previous reports indicated that the FYDP programme complemented the AEOP in Sibalew (Aguilar, 1989a: 2). Through the integration of funding from these two programmes the Sibalew locals were trained in various livelihood endeavours and their “idle labor” was maximised (Aguilar, 1989a: 2). The next section will discuss some of the accounts from Sibalew locals regarding the training.

9.7 Accounts Regarding the Foundation from Sibalew Locals

The educators who administered the training performed two significant services in the barangay. First, the primary role of the educator was to consult with the Barangay Council over the training to be conducted. The second duty was to organise the participants into teams of fifteen to twenty-five. Training was held during weekends and parents were encouraged to attend the training. Parents in full time work on other farms took Saturdays and Sundays off to work on their own farms and this gave them the opportunity to attend the training. The children sometimes took over household work on the weekends. This encouraged more attendance by the parents at the training sessions.
The basic skills acquired by participants in the training were important. The skills the participants gained improved their opportunity to increase their incomes, improved health and sanitation in their homes, provided an opportunity for social interaction, and encouraged them to pursue further learning. Furthermore, there were arguments from Sibalew locals that the ‘Certificate’ provided by the FYDP after training was completed was useful in obtaining work. Others argued that the credentials were more useful as a supporting document to acquire a loan to establish income-generating projects from the Rural Bank or College.

In a group discussion the local officials mentioned that the agricultural training was conducted at the demonstration farms. Jose Ingalla, the former barangay captain, insisted that there were three important reasons why the training was held on the demonstration farms. The first reason was to train other farmers when the assistance of the AEOPs was unable to reach their farms because of non-selection, distance, limited funding or other reasons. The second reason was to encourage the family of the farmer co-operators to participate in the training. This was to improve the working relationship between the SOAs and farmer co-operators in establishing an income-generating project. Finally, the labour rendered by the participants during the training helped the farmer co-operators reduce the costs incurred in the maintenance of their demonstration farms. There were other programmes and educators already working on Sibalew farms. For example, the SOAs were establishing income-generating projects. But the College preferred to conduct this training at the demonstration farms to facilitate the objectives stated above, rather than have a dispersed form of training.

Sibalew women also gave their own views on the training courses sponsored by the FYDP in their barangay. The women mentioned that some of them had completed two or three courses in food processing, dressmaking and cosmetology. They claimed the training courses provided them with basic skills. Some women argued that the skills they had learned were used mainly for the well being of their family. Others claimed they had used the recipes they had learned from the food-processing course to prepare food during their fiestas. Some participants mentioned that they sewed their own dresses and knew how to apply cosmetics when they attended special occasions. The participants claimed that the skills they had learned gave them increased confidence to associate with other women, especially those of the more affluent families. They knew how to prepare
themselves in the same manner as the more affluent women when they attended parties. Overall, the Sibalew women concluded that the training also improved their management of their daily household activities rather than their work on the farms.

In another group discussion held with Sibalew farmers, they commented on training offered in motor mechanics, carpentry and furniture making. Sibalew farmers explained that not all of them had attended those three courses because of the time involved. Other farmers claimed that they were interested but they could not leave their work and they wanted to have some free time on weekends. One participant in the group discussion reported that after he completed the training course in furniture making, he attempted to establish a furniture shop in Sibalew for the purpose of repairing dining tables and chairs. He also accepted orders for new tables, chairs and cabinets made of wood or bamboo. The business closed after one year, due to a lack of customers. The man explained that he was also pre-occupied with the work in his rice field and orchards. He claimed that because of the low number of customers, his limited capital and the amount of time spent maintaining his orchard projects it was hard to run a furniture shop in Sibalew.

In an informal discussion, Cesar Ingalla, the incumbent barangay captain, remembered that some local women attempted to start dressmaking and beauty parlour shops in Sibalew. Like the owner of the furniture shop, Ingalla explained that the dressmaking and beauty parlour shops had few customers. Seasonal work in Sibalew demanded that family members work on the farms. Ingalla mentioned that the locals seldom bought new clothes and most bought ready-made clothes. Further, Ingalla mentioned that like other barangays, the Sibalew locals usually wear new clothes only on special occasions like weddings.

In discussions with groups of local officials, there was some criticism of cosmetology despite the advantages claimed by many women. Officials claimed that Sibalew women seldom used cosmetics. Those who did were young and exhibited urbanised behaviour. According to local officials, the cosmetology course encouraged women to use cosmetics and have manicures which was an additional economic burden to families. The officials argued that the training course in cosmetology was not for income-generating purposes but for the well being of local women. It provided basic skills and kept the women busy and interested in their household activities.
Controversy aside, the local officials also mentioned that it was not only women who had manicures. There were also men who had their nails manicured. According to local officials, the problem of promoting the use of cosmetics in Sibalew was that once an individual had their nails manicured they were reluctant to get them dirty by engaging in work on the farm. The officials explained that this was not only the case in Sibalew. The practice was noticed in other barangays. The money spent on cosmetics was considered an investment. The individuals used cosmetics to keep themselves physically attractive out of consideration for the other people in their community. The main users of cosmetics were women who belonged to the more affluent families. The women who worked hard to produce income for the immediate needs of their families did not indulge in such practices very often.

The local officials acknowledged that there were women who had successfully established dressmaking and beauty parlour shops in the town. However, the officials argued that those businesses were difficult to operate in Sibalew because of the traditional social practices and the nature of local economic activities. The two types of shops, and the opinions expressed about the courses are examples that illustrate how change occurred in local social practices and economic activities in Sibalew.

Although those shops were said to have failed in Sibalew, locals reported that some individuals provided private services and repaired tables, cabinets and chairs, and there were also people who repaired motorcycles. There were also women who sewed new clothes and applied cosmetics for weddings or family reunions. There were women who claimed that the failure of the dressmaking and beauty parlour shops in Sibalew was because most women knew how to sew and repair clothes. Some women said that once they had learned how to apply cosmetics it was not necessary to go to beauty parlours. There were other women who claimed that they could not rely on the skills offered by the programmes to earn enough income to maintain their families. Some women, particularly the older participants, argued that they attended training mainly out of curiosity and to get acquainted with the other participants. The younger female participants suggested that the ‘Training Certificate’ they had received was important for them. They sought employment and hoped the certificate would help them find work and provide additional income for their families.
A woman who attended the dressmaking course explained that because she owned only a small parcel of land in Sibalew, she knew that her family had very limited economic opportunities in the barangay. She, her husband and three children travelled to Manila to find better economic opportunities. They went to Manila after she had completed her training in dressmaking in 1984. While in Manila her husband was employed as a contract worker abroad. She was employed in a garment factory. She explained that the Certificate had helped her obtain a job in the garment factory. However, this is another example of how training changed the lives of Sibalew residents, in this case separating the family. The kinship ties, so important in traditional Sibalew life, were undermined in the search for economic security.

Three years later in 1987 the family returned to Sibalew. The main reason for their return to Sibalew was because of difficulties encountered in Manila that they did not experience in the barangay. She explained that it was now difficult for her three young children to live in Sibalew, although the living conditions in Sibalew were better than Manila where there was more economic pressure and pollution. In general, she claimed that the income she received was not enough to be self-sufficient. She received an allowance from her husband abroad.

Another historical report was presented by a fifty-year-old man who been in Manila for two years working in the construction business in Manila. He explained that because he learned carpentry on the job, he did not have valid or recognised certification to prove his skill. For this reason, he said that he could not find a company to employ him permanently because of the lack of certification. He mentioned that a recommendation letter from a politician could help. But because of poverty and lack of connections he did not have the confidence to approach other people for help in securing a job appropriate to his skills. He complained that his work in Manila was irregular, dependent entirely on when somebody hired his services.

In 1984, the carpenter learned that the College had an outreach project in Sibalew. He returned home to manage his small farm where his family had remained while he was in Manila. He attended the training in plant propagation and orchard management. He also attended carpentry training and obtained a Certificate. He intended to use this credential when he returned to Manila. However, he was not able to return for several reasons.
First, he wanted other locals to work with him in Manila. Second, his age made it unlikely that he would find employment. Third, his orchard needed attention. Fourth, his family did not want to go to Manila. The man contracted for house repair worked in Sibalew. He appreciated the Certificate he got from the FYDP but said that it was too late for him because of his age. He tired easily in the congested environment in Manila. His final comment was that the training course provided by the FYDP was good for young people who could not afford formal education.

Overall, the accounts from Sibalew locals illustrate the web of connections between the AEOP and FYDP assisting them with training, opportunities and welfare. In general, the programme of the FYDP complemented the role of the SOAs in Sibalew. The agricultural course training conducted in demonstration farms, and the trade courses sponsored by the FYDP, established connections between the two agricultural education programmes in Sibalew. As a result, the aims of both the College and the FYDP for non-formal education were realised.

9.8 The Role of the Foundation in the Development of Sibalew

In 1984, after the termination of the AEOP funding in Sibalew, the FYDP continued to operate as an instrument that linked the College and Sibalew. In particular, the FYDP helped Sibalew to acquire other programmes and resources from local, national and international aid agencies such as foreign volunteers. Jose Ingalla explained that after the termination of the AEOP funding the College gradually stopped sending SOAs to Sibalew through reducing the number of students fielded in the barangay. Some employees employed by the AEOP had their contracts terminated in order to assist the implementation of internship students in Sibalew.

Reports from college staff involved in the project remembered that the College continued the internship of the SOAs in Feliciano, the next barangay. In 1989 the College introduced similar extension activities in Sibalew. Some SOAs were hosted to barangays near the school campus at Banga. The College staff explained that because of financial constraints the College retained a small number of AEOP staff to supervise and monitor the activities of the SOAs fielded in Feliciano and other barangays.
The cessation of hosting SOAs in Sibalew led the College to leave the full responsibility of maintaining the demonstration farms to the farmer co-operators with their families as labour. The Sibalew local officials took responsibility for the management of the infrastructure and development projects. An example was the Barangay Resource Development Center and the horticultural nursery, left by the AEOP to the barangay. Reports from local officials during group discussions indicated that farmer co-operators encountered problems maintaining the demonstration farms. In particular, it was difficult to synchronize the schedule of activities so they could get time to work on the farms.

According to Ingalla, the motivation of farmer co-operators to work on the demonstration farms was affected after the termination of the SOAs in their projects. Some income-generating projects that had been successfully established were not well maintained when the SOAs left. Ingalla and his officials acknowledged the change of attitude by farmers during the transition period. Ingalla had urged the locals to make more effort to continue the good relationship with the College. Ingalla considered that the training programmes run by the FYDP continued the relationship between Sibalew locals and the College.

There were three programmes of development assistance provided by external agencies where the FYDP played a major role. The FYDP played a significant part in the integration of the assistance and allowed the College outreach activities in Sibalew to be successfully completed. First, the Japanese International Cooperation Agency donated equipment to the College through the programme of the FYDP in 1987. Sibalew was one of the recipient barangays. Second, the Piña Fiber Project established in 1989 and later resumed in 1994, was assisted by the FYDP with financial support from linkage agencies. Finally, more recent development assistance was from the Community Development Fund. Six Senators of the Philippines in 1993 provided financial support to the FYDP for training activities in the rural barangays.

In 1987, equipment worth 10 million pesos (US$480.77)\(^4\) from the Japanese government was provided to the Philippines. The College was one of the recipients of the grant (Aguilar, 1989a: 2). The equipment included laboratory apparatus for research, sewing

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\(^{4}\) There was an average exchange rate of US$1=20.80 pesos in 1990 (United Nations, 1997: 295).
machines, accessories for food processing and tools for carpentry and mechanics. It also included farm machinery such as two four-wheel tractors with implements, combine rice threshers and six motorcycles. The abundance of the equipment strengthened the College programmes. There was more scope for the FYDP's training activities in all rural barangays including Sibalew.

Historical accounts from Cesar Ingalla, the incumbent barangay captain, reported that through the efforts of local officials they had borrowed the Japanese International Cooperation Agency equipment from the College. The equipment included a hand tractor, combine rice threshers, and carpentry and mechanics' tools. The agreement was that the Sibalew locals would pay a minimal rental for the use of the hand tractor for training purposes. The farmers had the opportunity to learn how to use the machine. Apart from the tractor, the carpentry and mechanics' tools were the only equipment used during the training. Ingalla explained that while the hand tractor was used to train farmers, it also generated income for the College.

However, Cesar Ingalla knew that the combine rice thresher did not suit the topography and was not suitable for the small area of the rice fields found in Sibalew. In addition, the Sibalew farmers were taught the use of the hand tractor and the maintenance of farm machinery. There was training for women in food processing and preserving native fruit, using the Japanese food processing accessories. The training improved local livelihoods and increased the income of the barangay. After six months the hand tractor in Sibalew was transferred to another barangay where the College conducted similar training.

Sibalew officials and locals acknowledged the FYDP helped the local people to gain access to the College rural development projects. Consistently, the Sibalew farmers claimed that the skills training in plant propagation and nursery management techniques provided by the educators were the same as those taught by the SOAs. Jose Ingalla confirmed the claim and argued that there was nothing wrong with the duplication of programmes because the FYDP provided an opportunity for locals who had not enrolled in the previous programmes. However, Jose Ingalla and his officials argued that the locals of other barangays misinterpreted the series of programmes introduced by the College and had accused those Sibalew individuals who co-operated with college staff of engaging in the unscrupulous practice of sip-sip, or connivance, to obtain additional
assistance. Ingalla suggested that in order to understand the issues raised by locals in other barangays, the perspective of the Sibalew locals working with the college staff and the other agencies must be considered. Sibalew locals had faced difficulties in executing the AEOP and FYDP-assisted projects in their barangay.

In 1989, another project introduced in Sibalew was the Piña Fiber Project. The establishment of the project was assisted by the FYDP with financial assistance from the linkage agencies. This project was a joint venture between the Fiber Industry Development Authority, the Department of Agriculture and the College through the FYDP. The project had two components: the training of local farmers to establish a native pineapple demonstration plot for the production of piña fiber, and another training session on piña fiber processing and cloth weaving conducted for local women and out-of-school youth. The primary purpose of the integration of the programmes between the three agencies was to utilise the FYDP training scheme already in place. The intention was to organise the mass production of piña fiber and to train locals to be piña cloth weavers. The strategy was to improve the piña cloth industry in the province to meet the demand from local and foreign markets.

Aguilar (1990: 50) reported that the main reason for selecting Sibalew as the site of the demonstration plots was because the topographic conditions and the soil of the barangay were conducive to pineapple cultivation. Sibalew locals strongly endorsed the established social and organisational structure that already existed between Sibalew locals and the College. The relationship helped to influence the decision by College staff and a representative from the agencies to have a joint venture project in Sibalew. The Aguilar report indicated that the Fiber Industry Development Authority, through the Department of Agriculture, granted 400 thousand pesos ($US1,6454.13) to the College. The grant was intended to finance the FYDP in implementation of the two components of the project.

The FYDP also used the money to construct several hand-operated looms for the piña cloth weavers. The looms were distributed to rural women who were conversant with

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42 There was an average exchange rate of US$1=24.31 pesos in 1990 (United Nations, 1997: 295).
piña cloth weaving. Some Sibalew women were also provided with looms. However, due to the intensive labour required for weaving, some Sibalew women found they did not have the patience and stopped weaving. When this occurred the College reclaimed the looms and transferred them to women in other barangays nearby.

In a group discussion with Sibalew farmers, the participants revealed that the piña project was not as successful as their calamansi, citrus and rambutan plants. Sibalew farmers argued that the piña project provided additional work and produced a promising income but there were several deterrents that needed to be considered when expanding plantations. Some farmers claimed that pineapples were not as laborious to maintain as the orchard projects. However, those farmers who planted a small plot of pineapple in their backyards argued that the thorny leaves were more trouble to deal with than they were worth. As a consequence, they did not expand their plantations. They insisted that the pineapple plantations needed to be replanted in a different place after the harvesting of the leaves, because pineapples are voracious feeders and take a large amount of nutrients and organic matter from the soil. The soil is left in a poor condition after the pineapple leaves have been harvested. The rotation of the pineapple plantation from one area to another required considerable labour for the cultivation of land, planting and maintenance of the plants. They argued that the pineapple plantation could be placed permanently in one area provided heavy applications of commercial fertilisers were delivered. Overall, the majority of Sibalew farmers claimed they minimised the use of commercial fertiliser to reduce farm costs and diminish environmental risks.

Inter-cropping of piña in calamansi orchards was one of the methods introduced to Sibalew farmers to grow native pineapple for fiber. One farmer who used the method complained that his piña plantation was not big enough. The area of plantation was about 500 square meters. He planted 5,000 native pineapple plants in this area. He declared that his native pineapple was solely for fiber production. If the pineapple fruit was used for human consumption the bitter taste caused itching or allergies in many people.

Because native pineapple grew better in rolling hills and required little space, the farmers utilised the available space between the calamansi plants. The pineapple suckers were planted in double rows 75 centimetres apart, between the calamansi plants. The College provided free pineapple suckers or seedlings for this project. The agreement was that the
income from the fiber produced from pineapple would go to the farmer; the College took the pineapple suckers produced in the plantation. The pineapple suckers produced would then be distributed to other farmers to plant on their own farms. The labour to maintain the pineapple plantation came from the farmer’s family. The FYDP provided funds for costs incurred in maintaining the pineapple. For example, the FYDP paid for fertiliser.

Eighteen months after the pineapple was planted, the farmer harvested the leaves. His wife scraped the leaves to process the fibers and sold it to the local piña traders. From his 500 square meters, the farmer received an income of about PhP12,000.00 ($US308.48)\textsuperscript{43}. The farmer explained that the income was high considering the small area of land used. He had not included in his assessment the cost of pineapple suckers because the College had provided them free. He said that if he sold the pineapple suckers to other farmers he could earn an even higher income. But he kept his agreement with the College and the pineapple suckers were harvested and distributed to local farmers. The small patches of native pineapple multiplied on the farms in Sibalew.

In a group discussion with women who did the knotted fiber they mentioned that the piña project provided them with an extra income. This group of women explained that they had not attended the training on piña fiber processing but had learned from other women who did the stripping, knotting and weaving. They acknowledged the amount of labour required before they could produce knotted fibers. The women maintained that their income from knotted fiber helped, especially when the allowance from their husbands was always late. Their husbands were employed in sakada, the sugar cane plantations in Tarlac in northern Manila. During interviews in Feliciano women described similar experiences.

The most recent assistance from external agencies to the FYDP for Sibalew was in 1993 when 650 thousand pesos ($US23,967.55)\textsuperscript{44} was granted from the Community Development Fund (1993 ASCA-ERDSC Annual Report: 3-4). Six senators sponsored the release to the College so the FYDP could finance their training activities throughout the

\textsuperscript{43} There was an average exchange rate of US$1=38.90 pesos in 1998 (Europa Publications, 1999: 1031).

\textsuperscript{44} There was an average exchange rate of US$1=27.12 pesos in 1994 (United Nations, 1997: 295).
rural barangays of the province. The funds were used, according to the 1993 ASCA-ERDSC Annual Report, for 32 employable skills training classes in different barangays of 8 municipalities all within the province. A total of 745 out-of-school youth, rural women and unemployed adults graduated (1993 ASCA-ERDSC Annual Report: 11-33).

The 1996 ASCA Annual Report statistics revealed 277 (1994), 365 (1995) and 165 (1996) farmers, out-of-school-youth youths, young adults and rural women were trained in various skills training courses through the FYDP. In 1998, there were 155 graduates, while in 1997 there had been 150 (1997 and 1998 ASCA-ERDSC Annual Report: 3).

According to the director the statistical data concerning graduates was then discontinued due to budget constraints.

Further, a review of the series of the ASCA-ERDSC Annual Reports, from 1993 to 1998 revealed that there were comprehensive statistical records of the FYDP's skills training courses, with the majority of the training conducted in the remote barangays of Aklan. Feliciano and Linayasan, where the fieldwork of this thesis was conducted, were amongst those barangays which had been active in the FYDP programme. Some FYDP skills training courses were conducted outside Aklan, such as in Sablogon at Passi, Iloilo province (1994 ASCA-ERDSC Annual Report: 9). However, Sibalew was not listed in the 1993-1998 FYDP-assisted barangays. The exclusion of Sibalew from the list of FYDP-assisted barangays did not necessarily mean that Sibalew was no longer considered part of the outreach programme of the College. In fact, the findings from the review indicated that some time in the early 1990s, the significance of Sibalew was changed in the outreach of the College. In particular, the change reflected the important role of Sibalew locals in the FYDP skills training courses in the rural barangays of Aklan.

Subsequently, Sibalew was acknowledged in the ASCA-ERDSC Annual Reports as the 'Model Barangay' for technology-transfer. Sibalew was to become the source of premium planting materials and technical information for farmers or individuals interested in orchard management and related livelihood projects. This finding indicated that the technological change brought about by various projects introduced in Sibalew, also influenced the recent extension programmes of the Extension and Rural Development Services Center (ERDSC). This Center administered the extension programme of the ASCA throughout the barangays of Aklan, providing skills training for local farmers, rural women and out-of-school youth. Bullo (1992: xix) asserts:
As regards to employment status, [FYDP] graduates of ECYCP/V-1 based at ASCA and those who attended agriculture skills training courses tend to be employed in jobs related to their training. [FYDP] graduates of ASCA likewise reported significantly higher income.

[Bullo further claimed that]... the relevance of the course, adequacy of the training and effectiveness of the methods of teaching and techniques used by the educators were significantly correlated with the effects of the program. The higher these ratings were, the greater were the effects of the said training program. They were likewise associated with the availability of post-training assistance provided to trainees and by the number of linkage agencies the center has in its program implementation. The more capable the center is, the better is the effect of the program (Bullo, 1992: xix).

Such findings by Bullo quantified the ERDSC 's effectiveness. The mission of the center was to “stimulate rural development through provision of appropriate assistance, information and honest concern on [for] the welfare of the least advantaged people in the community” (1998 ASCA-ERDSC Annual Report: 2). The findings by Bullo also confirmed the significance of the ERDSC functions of serving and providing assistance to the poor in remote areas. The short-term entrepreneurial skills training courses packaged with technology from the College were promoted in rural barangays. The annual reports produced by the Center highlighted the statistics, figures of 1857 locals that include farmers, out-of-school youths, young adults and rural women, who were trained in various short-term skills training courses in barangays of Aklan. The Center also established demonstration projects in other barangays, including Linayasan.

9.9 The Diploma - Bachelor in Agricultural Technology Based in Sibalew

The most recent agricultural education programme to be promoted by the College in Sibalew was the Diploma and the Bachelor in Agricultural Technology. The course was a “ladderized type of curriculum, [a] program visioned to produce entrepreneurs in agriculture” (Aguilar, 1990: 50). The main objective of the DAT-BAT programme was “to turn out graduates who are proficient in agricultural and entrepreneurial skills so that they could be self-employed and self-sufficient after completing the course” (ASCA, 1997b: 3). The purpose of the College was to provide access to education so the children of local farmers could gain the entrepreneurial skills to be self-employed, and to help improve the socio-economic status of student families through the establishment of family-based income-generating projects (ASCA, 1997a and 1997b; Aguilar, 1996).
The College also expected that the DAT-BAT programme in Sibalew would be “participative” to maximise the available land and idle labour of student families and empower them in decision-making (ASCA, 1997a: 1-2). Finally, the College predicted that through the barangay-based DAT-BAT programme, the local “migration of the barangay folks from rural to urban areas” would decrease, with the success of the selected student families expected to have a “multiplier effect in the community” (ASCA, 1997a: 1).

The College designed the DAT-BAT as a special programme for instruction, research and extension with the classes and laboratories held in the barangay (ASCA, 1997b: 3). The DAT-BAT: A Concept Paper (undated) maintained that the Sibalew-based DAT-BAT programme was conceptualised by the College with the general concept based on a “learner-focused philosophy using the learning-by-doing approach with the participation of the family.” The “teaching-learning activities would capitalize on the real-life experiences and family-based resources of the students coupled with the resources and technology of ASCA” (DAT-BAT: A Concept Paper undated: 1).

The report of ASCA (1997a: 1) indicated that the DAT-BAT was developed though a bilateral agreement between the Philippine Government and the Asian Development Bank. It was introduced throughout state colleges and universities in the Philippines. In the College, however, Aguilar (1989b: 2) indicated that the Diploma in Agricultural Technology had existed in Sibalew since 1989. Aguilar outlined the two main purposes of the earlier Diploma in Agricultural Technology in Sibalew which were similar to the current course. Aguilar described the logic behind the Diploma in Agricultural Technology in Sibalew thus:

At the start of [the DAT] program, each student was required to put up a project where he [sic] could work during his [sic] laboratory periods. There was [a] massive transfer of material resources (horticultural and animal stocks) from the college to the barangay [Sibalew]. The students were directly supervised by their instructors who stayed full-time in the barangay during class days. As one cycle of the program terminates, each graduate established his [sic] household farm bringing to the family additional experience and income. In this type of program, when the student graduates the members of the family indirectly graduate because they participate in the supervised farming program of the child (Aguilar, 1989b: 2).

The current DAT-BAT course required two levels of study and each level took two years to complete. The first level was the Diploma in Agricultural Technology and the second
level was the Bachelor in Agricultural Technology. The Diploma in Agricultural Technology focused on developing the skills of students in basic agriculture. Then, after the students graduated with a diploma, they had an option to study for another two years towards the bachelor degree. At the second stage, the instruction focused on the development of the student’s knowledge in decision-making and management of an agricultural enterprise (ASCA, 1997a: 1).

In the original Diploma in Agricultural Technology programme, classes were held in the Banga campus where 42 students were enrolled. Each group of five to six entrants selected a fellow student as their leader and an instructor as adviser. The instructor’s task was to assist the students to plan, implement and evaluate their project activities. Aguilar mentioned that each group then engaged in entrepreneurial projects. These projects included rice and corn production, hog fattening, duck raising for salted egg productions, poultry for broiler production, nursery and plant propagation, and upland crop production. The College provided limited funds for the students’ projects depending on the amount required. Aguilar further explained that the group was required to repay borrowed money from the income of their project and any surplus income of up to 25 percent went to the College capital pool for future students. Each group enjoyed the other 75 percent of the surplus income of their respective projects. Within the groups, the income of the students was divided based on the number of days the members worked on their projects (Aguilar, 1996: 8).

Aguilar concluded in his report that the first experiment in the DAT-BAT in-campus school projects showed that some students did very well. However, he argued that student “enthusiasm could hardly be sustained because they always think that any permanent development [of] the project will [sic] be left behind to the College after graduation” (Aguilar, 1996: 9). Aguilar acknowledged that to start a new project takes time but that the experience students gained on in-campus projects did develop self-confidence in entrepreneurial ventures.

After the first batch of DAT-BAT in-campus school projects, reports from the College revealed that one of the weaknesses of the programme was the rate of employment for graduates (ASCA, 1997a: 1). Many of the graduates did not go back to the farm to be self-employed. They did not use their knowledge and skills relating to production and
management. Instead, the graduates looked for employment in other fields, in the cities and urban areas (ASCA, 1997a: 1). This result caused the College to review the DAT-BAT programme. After the review, College staff developed the current alternative concept: the DAT-BAT programme was to be a barangay-based curriculum using Sibalew as the pilot barangay. The general aim was to provide proper instruction and assistance to students in rural areas to develop projects for themselves after their graduation.

The distinctive feature of this programme, whose ideology was based on modernisation theory, was its ability to invoke participation, alleviate poverty, generate income, instil self-reliance, enhance empowerment, improve the utilisation of local idle labour resources and check rural-to-urban migration. The programme made the College and what it was doing very relevant to the locals. Finally, it also underscored the legitimacy of the Government in the sense that the programme was seen as an attempt by the authorities to show the locals the way toward a better future. 45

In 1989, the Diploma in Agricultural Technology in Sibalew began with the two-year course involving thirteen enrolled students, children of Sibalew farmers. After their graduation, some students continued their study for the Bachelor in Agricultural Technology degree. The classes were held at a school campus in Banga. In the meantime, the College temporarily stopped the Diploma in Agricultural Technology programme in Sibalew. However, while the students at Banga continued their pursuit of the Bachelor’s

45 The ASCA report on the status of the Sibalew-based DAT-BAT program revealed the mechanics of student admission, instruction procedures and curricular strategies, as well as indicating what the College expected to achieve in Sibalew (ASCA, 1997a: 2). The report described the different kinds of saplings and vegetable seeds provided by the College. The farms, which belonged to the parents of twelve students, contained 4.05 hectares in total area (ASCA, 1997a: 3). The ASCA reports also indicated the direct technical assistance provided by five members of the College staff. Among them, two each were from the ERDSC and the Auxiliary Personnel Services of the College. The remaining technician was the local Volunteer for Information and Development Assistance. The United Nations Volunteers-Domestic Development Service in the Philippines employed him to work with Sibalew locals. Moreover, the ASCA report also described the family members of the students who worked on the farms/projects. However, they did not outline specifically the task that family members performed. In the final section of the ASCA report, the privileges of students who enrolled in the Sibalew-based DAT-BAT program were described. These included access to scholarships from the Romero Scholarship Grants. Besides scholarships, students were entitled to remuneration while they were working on their projects during semester and Christmas breaks. This privilege was provided by the Department of Labor and Employment under the Special Program for Employment of Students through the linkage established by the Office of Student Affairs of the College (ASCA, 1997a: 3).
degree, their parents managed their income-generating projects at Sibalew. Significantly, no monitoring report was made of the status of students after they completed their Bachelor’s degree. In 1996, the College restructured the initial two-year Diploma programme in Sibalew. Incorporated in the two-year Diploma programme was the optional two-year Bachelor’s Degree programme. However, the change in the duration of the programme did not alter the main objective of the College: to bring a better quality of life to rural barangays.

A review of College reports showed that the reopening of the DAT-BAT in Sibalew in 1996 was accompanied by a survey on the socio-economic status of parents of the enrolled students. The survey showed that of the 12 parent respondents, most were women aged between 45 and 50 years old. Most had attended high school. Their average annual family income was PhP18,636.36 ($US632.38). On average, the participants had resided for almost 40 years in Sibalew. The household size was about five members (ASCA, 1997b: 39).

The College report indicated that most of the respondents had their own houses of native materials and that, of the twelve respondents, two-thirds used electricity for lighting, televisions and stereo systems, but the majority used firewood for cooking. Some respondents were connected to the Sibalew local water system. In terms of land ownership, the survey showed that most of the respondents owned an average of 1.22 hectares planted with citrus, rice and coconut.

The report also indicated that immediate relatives were common sources of credit or loans. The respondents could also obtain a loan from the Sibalew Multipurpose Cooperative to buy farm necessities such as fertiliser, chemicals and seeds. However, despite these sources of farming capital, the report indicated that most of the respondents had experienced a lack of capital to buy crucial requirements necessary for their farm. The respondents also encountered unstable prices for their produce. Despite those problems, the report showed that the respondents had high aspirations for economic status and wished to provide higher education for their children.

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46 There was an average exchange rate of US$1=29.47 pesos in 1997 (Europa Publications, 1999: 1031).
Furthermore, the report showed that the respondents belonged to a relatively modest socioeconomic status group compared to households in fishing communities (ASCA, 1997b: 40-43). The selection of students for the course was not based specifically on educational achievement, but on the availability of family land, location, and the acceptance and interest of parents and student in using land for the project (ASCA, 1997a: 2). The findings imply that the poorest children in the barangay were not selected because their families were limited by the land available for such projects.

In this case study, Sibalew locals revealed that the family annual income stated in the College report was not accurate. Farmers were reluctant to provide their actual family income, it was revealed during the interviews, because they feared increased taxes once they provided accurate figures.

Although the report was probably premature, Aguilar’s initial findings revealed “positive elements of success like the commitment of the parents, students, faculty members and the support of the LGU” (Aguilar, 1996: 9). Based on such initial findings, it was assumed that the Sibalew DAT-BAT students would establish themselves in the farms after graduation and pursue farming as an entrepreneurial business.

Aguilar suggested that since the parents were the farm owners, the family members were also expected to participate and provide labour. The role of the College was to provide competent instructors to give lectures and assist the students. The College also provided planting materials and made limited loans available with low interest as initial capital for students to start projects. On the other hand, the students were expected to manage their projects. Any income produced from the project went to the student or their families. The College expected that once the projects were established and produced sufficient income, after graduation, the students would manage them. In this way the migration of local people from rural to urban areas could be minimised.

While Aguilar’s prediction may prove correct, there is no certainty that as incomes improve, the commitment of the locals would continue. If the short-term achievements are sustained, then with increasing wealth, the locals may lose some of the motivation and commitment to continue in striving for success. Inevitably, any increase in income within the barangay must lead to a change of economic and social status and affect the
role of the family concerned within the barangay culture. Sibalew locals explained during interviews that as incomes improved, new roles for individual’s emerged and social relations changed within the barangay. These changes would affect the locals’ commitment in Sibalew.

To some extent, the DAT-BAT in Sibalew would be able to help alleviate low socio-economic status and increase empowerment for decision-making but only to those families with children enrolled in the course. Limited farming resources, traditional sociocultural practices, power relations and politics confused the College’s expectations of the course in Sibalew.

9.10 Accounts of Sibalew Locals on the Courses

In Sibalew during the fieldwork of this case study, one of the topics of conversation that concerned the locals was the DAT-BAT students. This project was often informally discussed with the Sibalew officials. Ingalla argued that the twelve students in 1996 pursuing the DAT-BAT were more fortunate than the thirteen students taking the DAT-BAT in 1989. In 1996 the College had provided scholarships and had subsidised the costs of their income-generating projects while the student and family provided the labour.

In 1989, after the thirteen students graduated from the Diploma in Agricultural Technology programme in Sibalew, they were encouraged to enrol in the Bachelor in Agricultural Technology to gain a degree. The venue was moved from Sibalew to the College campus at Banga. One local official whose son was a graduate of the Diploma in Agricultural Technology programme in Sibalew claimed that not all the students who completed the diploma had enrolled for the bachelor degree. His son had not enrolled either. The main reason was that he could not afford to pay the school expenses for his son. The class was held in the College campus in Banga but the travelling expenses were an economic burden to him. In fact, he mentioned that although his son graduated with a diploma, he had three children who were studying at high school. Their education was all he could afford with his small income from farming. Even the extra income from carpentry was not enough to cover the costs involved at Banga.
The official further explained that because of financial limitations, his son had gone to stay with relatives in Manila to find work. Through the help of their relatives, his son had been employed in a private piggery farm. During the three years he had been in Manila, his son occasionally sent money home to help the schooling of his younger brothers and sisters. Some money was used to buy fertilizer and chemicals for the citrus and rambutan orchards left by his son. The family continued to maintain the orchards. The official contended that the citrus and rambutan income was enough for his son to enrol in the degree programme. But because of his permanent job in Manila, according to the official, his son was not interested in pursuing a degree. The official argued that the diploma was a very good course. It was not necessary to have a degree when there were existing opportunities for employment of diploma graduates, he claimed.

The piggery project was introduced to the students as an alternative to orchard projects. The College funded the construction of a piggery house in Sibalew. The stock for the piggery was obtained from the Municipal Government through the Department of Agriculture. The students looked after the animals in the piggery. The College supplied feed and other supplies needed for the project. Locals asserted that they realised the piggery project was experimental. It had provided access to an education that, for many, would otherwise not be available. The locals acknowledged that the second scheme was more academically and technically advanced than the first one in 1998.

In the interview, Cesar Ingalla explained that the reopening of the DAT-BAT was experimental and acknowledged the arguments raised by locals regarding the previous programme in Sibalew. Some Sibalew parents were provided which an opportunity to participate in the programme. They also had a responsibility to maintain the income-generating project of their children. The project provided additional income for families and utilised their labour more productively. Parents noted that the total area of land was not sufficient for the projects. Even when the plants had matured and were cropping successfully, lack of area meant that there were not enough trees to add significantly to the family income. In the early stages the citrus and rambutan did not produce an economic return. This was because some portion of the land was already planted in orchard crops. The scheme was labour intensive if the plants were to be maintained to the necessary standard during the growing and harvest season, but failed to engage all family members throughout the year. The parents agreed that the project showed promise, but
because of the seasonal nature of the work, the surplus labour in the off-season and the consequent lack of income, the scheme did not encourage graduates to work permanently on the farms once they obtained their degree.

Ingalla further explained that the parents argued that their children worked diligently on their projects to earn a good grade and pass the course. But once the children attained their diplomas, most parents wanted their children to move to where they might secure a good job to earn a living. Overall, Ingalla said that the parents concluded that the DAT-BAT improved farming practice and income for the student’s family. However, the parents maintained that the programme had not prevented the migration of young people to urban areas. According to Ingalla the parents insisted that their children wanted to find new economic opportunities and freedom. The parents agreed that the only way the children could obtain freedom was to move.

Group discussions with students of Sibalew confirmed the positive impact of the DAT-BAT programme. Not only the students benefited; it was also noted that there were improved economic, technical and social conditions for locals in Sibalew. The students explained that the programme offered many economic opportunities: as they earned their degree they also learned how to create income. For instance, the students claimed that a year after their orchard projects were established in 1996 they gradually earned income from inter-cropped varieties such as banana, pineapple and beans while they continued to maintain the citrus and rambutan plants which were beginning to fruit. Four years later, the students expected the citrus and rambutan plants to be fruiting heavily and provide a higher income in 2000. In the interim, the students explained that they had received a diploma as well as income from their orchard projects.

Frances Ragaas gave his personal account of doing the diploma in Sibalew and a degree in the College campus at Banga. Ragaas was the first student to enrol in the DAT-BAT in 1989. Ragaas related that while he undertook the in-campus entrepreneurial project together with other students in the College at Banga, he also developed the rambutan and citrus orchards plantation in the backyard of his parents’ home at Sibalew. He started to develop the orchard after he obtained grafted seedlings of rambutan and marcot citrus plants from the College. The area of his orchard was not big enough: about a half
hectare. He said that during the school day he reported to the College to attend lectures and work with other students on their projects.

However, on the weekends Ragaas said that he spent most of his time working on his orchard in Sibalew. He claimed that whatever he learned from their project in the College he also applied to his orchard at the barangay. After he graduated he could not find a permanent job. However, even within that short period of time he did obtain a small income from his orchard plantation because demand for the produce was high. He said the income was between 10-30 thousand pesos annually. Ragaas further explained that because he could not find a permanent job he had time to work on his orchard project. In 1996, Ragaas mentioned that he was pleased with his orchard projects which produced an income of about 80 thousand pesos ($US3,052.27)\(^{47}\) from nearly a hectare of his citrus and rambutan orchard.

Ragaas used the income to repair his parents’ house where he lived. He also bought a motorcycle for his family that was used to earn income transporting Sibalew passengers to the main road or into the town, particularly on market days. The income he earned from the motorcycle supplied the daily needs of his family while his orchard project produced seasonal income. Finally, informal discussions with Ragaas revealed that he had recently married a woman he met at the Aurora State College of Technology at Aurora, Quezon. Ragaas mentioned that his wife was not a resident of Aurora but she was employed permanently in the Aurora State College of Technology at Aurora and he planned to work there eventually as well. He explained that his orchard plantation had sentimental value to him. However, he had no choice but to leave his orchard project to his parents and to establish his own family in Aurora.

This account shows how the commitment of a particular student of the income-generating projects changed over time. Interestingly, Ragaas' account also illustrates the connections between the future economic advantage of the students, the College’s intention of providing self-employment in the barangays, and the migration of young people from Sibalew. The account further describes the relationships that link the

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\(^{47}\)There was an average exchange rate of US$1=26.21 pesos in 1994 (United Nations, 1997: 295).
graduates, the project established in their own barangay and the impact of the economic advantage of students when they want to raise their own family at a later date. Such information may help improve further the DAT-BAT programme of the College.

Despite the success of the College’s DAT-BAT programme in Sibalew, there were also reports from some students that their projects demanded intensive labour. Aguilar acknowledged such criticism in his report (Aguilar, 1996: 8). Aguilar explained that the criticism was attributed to the student’s individual differences in “terms of interests, values, ability, expectations, aspirations and other socioeconomic variables” (Aguilar, 1996: 8). Aguilar further explained that there were situational differences for students: the social and physical environment could affect their response to programmes. Also, the “expectation of the rewards system acquired from the project or the course” would be the reason for students’ criticism of “too much work in the project” (Aguilar, 1996: 8).

The specific findings by Aguilar were replicated in this case study, which shows the strong commitment Sibalew people have to support the DAT-BAT programme of the College. However, analysis of interviews with Sibalew locals suggests that conflicting views existed between students and their family members. This is particularly evident over the management and ownership of established projects in the family. For instance, one of the Sibalew officials noted that there were arguments between the students and other family members regarding the expansion, maintenance and ownership of orchard projects. The official explained that one student was interested in expanding her orchard project but she encountered considerable opposition from her bothers. This happened because the expansion of the orchard project necessitated cutting down some coconut palms, which other family members did not want to do.
Plate 8. The mixed Orchard Project in Sibalew. Upper: the newly established income-generating project planted with banana, pineapple and rambutan. Lower: the established income-generating project of the DAT-BAT students. Note the density of the plants, a result of the limited land available for cultivation (Photo: R. L. Saladar, 1998).
Another problem was that some students experienced difficulties dealing with the expectations of the College staff who supervised them. They expected the students to appropriate a reasonable amount of land for their project. Conflict increased between students and the authoritative roles of their parents. The parents considered themselves the main owners of the farm and the students were obliged to respect them as the heads of the family in spite of the newly acquired technological knowledge. Sibalew officials cited the following example. During the planting and harvesting seasons most the students were required by their parents to work on their farms to earn extra income for the family unit. This required students to leave the work on their own orchard projects to help in rice planting or harvesting. However, the College staff expected the students to apply themselves to the prescribed maintenance and work on their projects. The instructors who supervised students were also concerned that the projects should look their best when visitors inspected the farms to examine the rural development projects in Sibalew. The local officials considered those issues were similar to the complaints made during the previous Diploma in Agricultural Technology programme introduced in 1989.

9.11 Summary

In summary, this chapter examined the development of the demonstration farms in Sibalew. The ASCA promoted three types of agricultural education programmes to develop the demonstration farms and introduced new agricultural technology to the rural barangays. Sibalew was the most successful. The education programmes had mutual objectives to improve the quality of life in rural barangays. The College used Sibalew consistently as an experimental area for education programmes. The three programmes were used to address the needs of the locals. Each programme introduced various types of agricultural technologies. Training, loans and the establishment of income-generating projects were used to promote the new technology. The programmes were implemented over a period of fifteen years and the duration of each project varied. Controversy accompanied the implementation of each of the programmes and included technical, social, cultural and political issues. The imbalance of power in economic and political matters, control over access to limited resources, the insecurity of the social status of those involved when conflict arose, lack of confidence and alienation were examples of the issues confronted.
The three agricultural education programmes were designed to address the needs of the locals and other actors engaged in the implementation of the programmes. They had different social, economic, political and educational backgrounds. The involvement of various actors developed a diversity of interests and created complexity. Regardless of the controversies associated with the implementation, the College was able to integrate financial, technical and material assistance from various agencies in Sibalew. The investment and the extended length of time combined to bring success to the demonstration farms that became the source of technology for the barangay. In general, the College experimentation with the agricultural education programmes in Sibalew resulted in major change that led to the transformation of Sibalew, reshaping the Filipino rural tradition and the cultural practices in this barangay.

The first agricultural education programme introduced in Sibalew was the Student Internship of the SOAs in 1983. This was one of the component projects introduced by the AEOP. Previous studies and reports related to the AEOP were reviewed. The United States Agency for International Development, in partnership with the Philippine Government, funded this project. The ASCA, previously called the Aklan Agriculture College, was one of seven recipient colleges of the projects. The review of previous reports revealed the controversies inherent in the ‘top-down’ approach of the AEOP. One such problem was that the funding was not directly administered for the needs of, or by, the local people. Instead, the majority of the funding was allocated for the training of the College faculty and staff. Funds were also absorbed in the upgrading of facilities for instruction, research and extension, and so improved the College outreach projects.

The literature suggested the ‘top-down’ approach was a less effective means to address the needs of locals. This was particularly the case when there was an urgent need to reduce poverty in the rural communities. But the ‘top-down’ approach remained popular for the implementation of projects, as control over funds, delegation of authority and the necessary accountability were present in such a structure. The employee merit system, based on the reported accomplishments of individual staff members was an important feature of the ‘top-down’ approach. Critics of the ‘top-down’ approach considered the organisational hierarchy tended to delay implementation of projects. However, the ‘top-down’ approach did result in benefits to the College and the locals. Ironically, the delay
in the implementation of the AEOP resulted in additional funding and the College strengthened the internship of the SOAs in Sibalew because as a consequence.

The Sloping Agricultural Land Technology was identified as the appropriate technology for upland farmers. The College promoted this technology to improve farming methods in rural barangays. The demonstration farm of Sloping Agricultural Land Technology was initially established in the College campus during 1980. The demonstration farm was not intentionally introduced to evaluate the effectiveness of the technology, but was used to promote the technology for instruction and training of students and local farmers. Later, the College extended the Sloping Agricultural Land Technology to the local farmers in six rural barangays through the internship of the SOAs. Sibalew was the last barangay to enter the scheme 1983. Sibalew farmers tried Sloping Agricultural Land Technology on their farms. But several years later there were arguments over the technology. Experienced farmers complained that the technology required intensive labour, and it was necessary to wait a long time to get a return from the land. Further, there was only limited available land suitable for cultivation, and the hedges recommended for the contour lines took up too much space, using nutrients that crops could benefit from. The arguments were complex and embraced economic, cultural and technical issues. However, there was some consensus amongst locals that the technology was not as good as it should have been. As a consequence, many farmers were not convinced of the benefits and refused to adopt the technology.

The College promoted the Student Internship and loan assistance in Sibalew to assist the locals in this barangay. The Student Internship was an integral part of the College curriculum as an alternative to the thesis requirement for the students to attain a college degree. SOAs studied during the week and worked for forty-five days in the barangay, mainly on weekends. By working on the farms the students gained practical skills to supplement the theory learned in the classroom. As a consequence of their working with individual farmers, the students were able to pass on their knowledge and improve the local farming technology. The students earned credits towards their degree through their income-generating projects established with a local farmer. Loans and technical support were provided to the Sibalew farmers involved in income-generating projects through the SOAs. Income-generating project proposals were the major requirement for access to the loans. Barangay Demonstration Laboratory Instructors were employed and they stayed in
the barangay, assisted the local farmers, and supervised the activities of the SOAs. The Barangay Resource Development Center and Horticultural Nursery were constructed in the early stages of this programme. Selected local farmers were trained in Sloping Agricultural Land technology and several demonstration farms were established in Sibalew.

The College extended considerable support and assistance to Sibalew farmers. But there was argument over the distribution of assistance that created jealousy in the early stage of the implementation of the programmes. Jealousy erupted between local farmers who received assistance and those who did not. This issue was ignored by administrators who considered such problems an integral part of development. The processes of implementation required consultation with barangay officials. The Barangay Council was directly involved in the implementation and the scheme provided an opportunity for the members of the Barangay Council to take advantage of what was on offer. In return they were willing to accommodate the procedures introduced by the College. The majority of the members of the Barangay Council were the first to receive training and assistance from the College. Sibalew locals acknowledged the key role of the Barangay Council in this scheme. They were persuaded that their local officials acted in the best interests of the development of the barangay. Although the level of jealousy eventually declined through Barangay Council initiatives in the early stages of the projects, the economic development that occurred in barangay was due, in part, to the materialistic competition that developed between locals.

The second agricultural education programme was non-formal education. This programme focused on short-term skills training courses based on the 'grassroots' approach. Training courses were conducted based on the identified interests and needs of the locals, according to previous studies. The FYDP’s mission was to train and assist the out-of-school youth, young adults and rural women to make them young ‘citizen producers’ in Filipino society. In 1977, the FYDP began to operate in the College. The mission of the FYDP was implemented through the non-formal education programmes that already existed in the College.

The FYDP conducted the short-term skills training courses in Sibalew in the same year as the opening of the AEOP in 1983. Inaccessibility and lack of information from the
College regarding the non-formal education programmes were the reasons why Sibalew locals had not participated. One hundred and twenty hours were allotted for each training course, mostly conducted on weekends. The training included courses in agricultural production and vocational skills. Plant propagation, nursery management and orchard establishment were the first training courses conducted. Vegetable and livestock production, such as organic gardening and animal raising, were also included. The farmer co-operators who were also the recipients of the AEOP made up the majority of the participants for training. The participants supplied free labour through bayanihan and several demonstration farms were established. The training was the starting point of the gradual diversification of agricultural production of Sibalew.

The FYDP obtained equipment from the Japanese International Cooperation Agency in 1987. Some of the equipment was used in the training and short-term vocational courses were conducted in Sibalew. Carpentry, furniture making, radio-electronic repairs, food processing, cosmetology, tailoring and dressmaking were conducted in Sibalew. Through the FYDP, piña fiber production was initiated in Sibalew in 1989 and the training included piña fiber production, fiber processing and piña cloth weaving. The aim of the FYDP was the revival of the traditional local technology in the local piña cloth industry. The initial training focused on the propagation of native pineapple suckers and several demonstration plots were established in Sibalew. The suckers of native pineapple were supplied to other local farmers. The extracted fiber from the piña leaves was sold to the piña cloth weavers in other barangays. The FYDP training scheme enhanced the locals' economic opportunities that could be provided by the AEOP. Reports indicated that some locals established livelihood projects after training and obtained supplementary income. Some trainees moved from the barangay to gain employment in private enterprises located elsewhere. Some Sibalew locals received additional money from their children employed outside the barangay, which helped family finances.

Finally, the third agricultural education programme was the Diploma in Agricultural Technology in 1989 and the Bachelor in Agricultural Technology in 1996 based in Sibalew. It was more sophisticated than the previous programmes had been. This programme was formally designed for the attainment of an academic degree and included a component to encourage the development of entrepreneurial skills. It was available to the children of the Sibalew farmers and farmers from nearby barangays. The
opening of these courses in Sibalew brought further economic opportunity to some locals and saved parents the cost of education. Loan and technical support were provided to the students, who established income-generating projects. Livelihood projects introduced earlier by the SOAs were similar to the short-term skills training course projects of the FYDP. Like the previous two programmes, the Diploma in Agricultural Technology and the Bachelor in Agricultural Technology established income-generating projects through the students and provided additional income to their parents. It was expected that the developmental and entrepreneurial skills acquired in the Diploma in Agricultural Technology and the Bachelor in Agricultural Technology courses would provide local employment. The student was to be self-employed through their income-generating project after graduation. The strategy was to reduce local migration to the urban areas.

Overall, the three agricultural education programmes in Sibalew improved the technical, social, cultural and political awareness of the locals. Sibalew locals gained new perspectives on economic development. But apparently the education acquired by the young people, particularly those who had formal academic degrees, was not fully exploited by locals in the barangay. Education, and the subsequent degrees, was unable to preserve the rural traditional lifestyle or cultural practices in Sibalew. There were contradictions between the local people's perceptions of education, their traditional cultural practices and technological and economic development. The economic interest of parents was linked to the need for their children to get a higher standard of education and therefore secure better-paying jobs, ultimately ensuring the future economic security of parents.

The higher education of children provided economic advantage to parents in Sibalew. Traditionally, a child sent money home as part of their obligation to the family. An increase in this practice led to further social and economic inequality. The other families whose children were unable to access employment in cities, especially overseas, meant that they were deprived of this additional income. There was conflict over the traditional authoritative role of parents and the behaviour the young people learned in the outside world. The preservation of moral values such as paggalang, pakikipagkapwa-tao and pakikisama that most parents and elders adhered to was the main issue. In general, the findings of this case study suggest that the formal academic degree was a device for
young people to move away from the rural barangay to the cities for economic opportunity, freedom, and materialistic pleasure.

Overall, the three agricultural education programmes in Sibalew improved the technical, social and political awareness of the locals. The programmes changed the worldviews of the locals and made them aware of procedures well established elsewhere in the Philippines. Sibalew locals gained new perspectives on economic development. The higher education of children provided some economic advantage to parents in Sibalew. The previous studies and reports reviewed indicated that some locals established livelihood projects after the training and obtained a supplementary income from them. Some Sibalew locals received additional money from their children employed outside the barangay. This chapter suggests that the three programmes promoted by the College to introduce the new technology were moving from a ‘top-down’ toward a ‘bottom-up’ approach to encourage more participation by locals. However, there were social, political and cultural issues in Sibalew that must be taken into account in introducing future programmes. These issues are examined in the next chapter.
Chapter Ten

Other Interventions in the Transformation of Sibalew

10.1 Introduction

This chapter examines the additional interventions associated with the three agricultural education programmes promoted by the College in Sibalew. There are three main areas of discussion. First, the linkage agencies and their involvement in the development of Sibalew are described. The interrelationship that existed between linkage agencies, the College, Sibalew officials and locals are emphasised. Second, the introduced livelihood projects are described and discussed. Six examples of livelihood projects that were introduced are presented. Third, the four major utilities established in this barangay are discussed. The discussion illustrates the relationships that existed between various agencies and shows the integration of their resources. This helped to achieve a common goal in the development of Sibalew.

10.2 Linkage Agencies Involved in the Development of Sibalew

This section examines the linkage agencies of the College that had contributed to the development of Sibalew. These agencies are classified into local, national and international aid institutions. The local and national agencies are related to each other in the execution of their functions and through the implementation of programmes. The linkage agencies tended to be complex in bureaucratic procedure and that could hinder the implementation of projects in rural barangays. In this section, the intention is not to elaborate on such issues: instead a discussion will be provided on the agencies involved and the contribution they made to the development of Sibalew. The discussion will provide illustrations and examples of the complex linkages between the College, the agencies involved and Sibalew.

The College linkage agencies involved in the development of Sibalew were examined through a series of reports produced by Aguilar (1990; 1989a; 1989b and 1987). Financial and technical assistance, as well as materials and equipment were provided by these agencies to the College to assist the local livelihood and infrastructure of Sibalew. The linkage agencies included the Department of Local Governments, Department of
Agriculture, Department of Health and Department of Social Welfare. The Department of Environment and Natural Resources, Department of Public Works and Highways and the Fiber Industry Development Authority were also involved.

The Philippine National Volunteer Coordinating Agency provided development assistance to the College in 1983, particularly in Sibalew. Through the auspices of this agency the College provided American and Japanese volunteers to assist in the implementation of outreach projects. The American volunteers were instrumental in obtaining grant assistance from their government through the United States Agency for International Development. Similarly, the Japanese volunteers also helped the College through the Japanese International Cooperation Agency. The United Nations, based at Manila, extended financial and technical assistance through their volunteers (Aguilar, 1990; 1989a; 1989b; and 1987).

Accounts from college staff revealed that 'linkage agreements' were established first between the College and compatible agencies. These agencies were interested in linking their programmes and sharing their resources for the development of Sibalew. Linkage was made through project proposals. These were validated through the Memorandum of Agreements: a legal contractual agreement between the President of the College and the Director/Chief Executive of the agencies involved. There was mutual agreement on the linkage-programmes and they were generally consistent with the mission statements of the College regarding outreach programmes. The developed linkage allowed the involved agencies to integrate their resources in the barangays. The College controlled the projects and resources from the linkage agencies.

A review of previous reports showed complex linkages existed between the College and their agencies (Aguilar, 1989a; 1989b; 1987). The review indicated that there were several agencies involved in any particular project. Some agencies had specifically ministerial functions. An example was the Department of Local Governments. The College and others considered such agencies were an integral part of the development that occurred in Sibalew. However, other agencies had channelled their assistance through another agency and then to the College. The projects of the Fiber Development Authority and the Department of Agriculture in Sibalew were examples.
The College was accountable for the implementation of the linkage agency's projects in Sibalew and in other barangays. Examples were the plant and animal dispersal programme in 1983 and the reforestation campaign in 1984 conducted in Sibalew. This was a National Government programme. Through the Department of Agriculture the funding for the dissemination of superior plants and purebred animals was provided to the College for distribution to barangays like Sibalew. The Department of Environment and Natural Resources provided thousands of saplings. The Department of the Public Works and Highways also offered the services of heavy equipment, for example graders, trucks and loaders for the improvement and maintenance of access roads to Sibalew (Aguilar, 1989a: 4 and 1989b: 3).

An example was the maintenance of the barangay road as explained by Sibalew officials in the interviews. They complained that landslides trapped motorists in their barangays and created problems for the locals. The clearing of the road involved heavy work and required the services of heavy equipment from the Department of Public Works and Highways. Sibalew officials, through their connections within the College, made a request to obtain equipment from the Department of Public Works and Highways. To obtain a more rapid response to their request, Sibalew officials sought endorsement from the Municipal Mayor or Provincial Governor.

Assistance from USAID and JICA led to the construction of infrastructure facilities in Sibalew. The Sibalew Water System was installed and the Upland Access Road was built through this funding procedure. Other assisted barangays, such as Feliciano and Linayasan, did not receive this form of attention from the two international aid agencies.

The Philippine National Volunteer Coordinating Agency played a unique role in the development of Sibalew. Through this agency Aguilar (1990: 50) reported that volunteers from the United States, Japan and the United Nations were assigned to work on the College outreach projects. The United Nations contingents of volunteers were from India, Bangladesh and Indonesia as well as a local volunteer involved in working with the locals in Sibalew. The local volunteers from Sibalew were contracted by the Philippine National Volunteer Coordinating Agency as the Volunteer for Information Development Assistance to help foreign volunteers establish projects in the barangay (Aguilar, 1990: 50: 1989a: 3; 1989b: 4 and 1987: 5).
Aguilar (1989b: 5) insisted in his reports that the outcomes of the projects the foreign volunteers participated in and were assigned to by the College helped the development that occurred in Sibalew. He maintained that the horticultural stock distributed by the volunteers improved the produce and income of local farmers. The out-of-school youth and young adults were trained and kept busy with productive activities. The technologies brought by volunteers developed the technical awareness of the locals and their social and economic conditions improved. The final conclusion of Aguilar was that "volunteerism has kept a close linkage among the project actors, namely the college administrators and the personnel, provincial and municipal officials and the barangay officials" (Aguilar, 1989b: 5). Sibalew locals in the interviews confirmed such a conclusion. The next section will provide examples of various types of projects to illustrate the complex relationship and interaction of various agencies in combining their resources to achieve a common objective in Sibalew.

10.3 Assisted Livelihood Projects

This section will cover the six different types of livelihood projects introduced in Sibalew. These included the Livestock and Poultry Project, the Inland Fish Culture, a Barangay Horticultural Nursery, the Apiculture and Rice Mill Projects, the Piña Fiber Project and the Student Entrepreneurial Project. The discussion first focuses on the introduction of the particular projects in the barangay. This will be followed by a discussion on the comments of the locals on particular projects and some issues and problems.

10.3.1 Livestock and Poultry Project

This project was introduced in Sibalew through the ‘animal dispersal programme’ of the College. Three Japanese volunteers from the Japanese International Cooperation Agency were involved in this programme. These volunteers assisted the College in the implementation of this programme in Sibalew and other barangays. The upgrading of animal stock and livestock management in the College was begun in 1977 (Aguilar, 1990: 48).
The first Japanese volunteer assigned by the College assisted the College faculty and technicians, upgraded animal stock, and improved the livestock and poultry projects on the campus. Thereafter, the succeeding volunteer further improved livestock, renovated shelters and purchased purebred animals from different breeding stations. Some purebred stock, for example cows, were obtained by the College free of charge through the Philippine Government Animal Dispersal Programme. The third volunteer increased the number of purebred goats, Anglo Nubian, Alphine and Saanen, that were used to breed with the existing breed and in this manner the goatery project developed in the College (Aguilar, 1990: 48).

The hybrid animals were distributed to the barangays, including Sibalew. The locals confirmed that improved breeds of goats and hogs had been supplied by the College to local farmers who had land available for grazing with some provision for shade. These hybrid were crossbred with the existing animals. Backyard piggeries, poultry and duck projects produced meat and eggs. Previous reports indicated that loans were provided for the local farmers to cover expenses incurred in crossbreeding. The Japanese volunteers with College staff, technicians and students promoted the animal dispersal programme in Sibalew in 1983 (Aguilar, 1990: 48).

Accounts from locals indicated that the animal dispersal programme was implemented in concert with the other programmes introduced in Sibalew. For example, the SOAs were involved in the animal dispersal programme. The improved animal breeds were introduced to local farmers through the income-generating projects of students. Sibalew farmers acknowledged that there were a considerable number of animals given to the locals. The quality of the remaining animals in Sibalew was improved and the original stock was returned to the College to be consigned to other barangays.

Sibalew farmers, in evaluating various projects, suggested that the livestock project was less successful than the orchard plantations in their barangay. Massive capital investment, higher risks of disease, limited grazing areas and consistently low prices had hindered commercial livestock production in Sibalew. Therefore, only one local farmer had engaged in a small-scale piggery project in the barangay. Most farmers preferred horticultural crops to animals. But most of the locals raised a small number of animals for family subsistence and to sell when situations arose where immediate finance was
necessary. Other locals considered that raising animals was not a financially viable option in the rural barangay.

10.3.2 Barangay Horticultural Nursery

The Barangay Horticultural Nursery was another type of assisted project established in Sibalew when the Agriculture Education Outreach Projects operated in 1983 (Aguilar, 1987: 4). The construction of a nursery was through the barangay bayanihan system. Locals provided free labour for the construction. The College supplied materials and stock. The locals maintained the nursery with technicians from the College. The SOAs were also involved. A campaign to collect planting materials was an integral part of this scheme; College and High School students collected seeds and seedlings to help the College secure stock for their projects. SOAs assisted in the training of local farmers in the nursery. This was an example of student involvement in the nursery project. Farmers gathered citrus fruit and rambutan seeds to obtain strong healthy plants. Locally sourced inferior seedlings were potted, grafted with superior stock, and propagated in the nursery.

Aguilar (1987: 4) reported that the establishment of the Barangay Horticultural Nursery had improved the quality of seedlings and plants produced in Sibalew. The local farmers, including out-of-school youth, were trained in plant propagation. The propagated seedlings produced during the training were tended in the nursery for three months. When the plants were ready for planting they were distributed to the other farmers (Aguilar, 1989a: 3). Sibalew locals agreed with Aguilar’s claim that the training of farmers, the kinds of seedlings they produced and the technical assistance extended by the college and through others involved in the nursery had improved local farming methods.

Training was ‘hands-on’ for any people who brought their own seedlings. They were shown how to execute the actual propagation techniques. Budding, grafting, marcotting and basic skills in nursery management were taught. The calamansi, citrus and rambutan, propagated, were distributed in the barangay. The farmer who propagated the plants took 50 percent of the total number of plants produced. The remaining plants were shared amongst other farmers through an exchange procedure. The farmers bought new
seedlings to the nursery to propagate. *Mahogany* and *Gemelina* seedlings, for timber, were produced and distributed to the local farmers.

Interviews on the historical development of Sibalew revealed that when the Agriculture Education Outreach Project was terminated in 1984, a volunteer from India assisted the locals in the nursery. He was from the United Nations Volunteer-Domestic Development Services. The volunteer improved the numbers of collected seedlings and production increased. The distribution of seedlings became more widespread within the barangay and the number of orchards of calamansi, citrus and rambutan increased gradually. The Indian volunteer assisted local farmers in plant propagation in their own orchards. By 1987, some of the farmers had produced seedlings and sold them to other farmers outside the barangay. The farmers considered the barangay nursery was significant in the establishment of their orchards. However, when farmers had learned how to produce their own plants, the nursery became less important, until finally it was abandoned.

### 10.3.3 Inland Fish Culture Project

The United Nations Volunteer-Domestic Development Services, through the College, assigned the foreign volunteer from Bangladesh to introduce the Inland Fish Culture project to Sibalew (Aguilar, 1989b: 4). Similarly to the Livestock and Poultry Project, the stock of young fish had been cultured in a fishpond at the College and was then brought to Sibalew. Historical accounts from Sibalew locals showed that one farmer attempted to establish the fishpond project in 1986. The purpose of the project was the production of fingerlings of *tilapia* (carp species) for dissemination to the other farmers in the barangay, in the same way that the seedlings were distributed within, and later outside, the barangay. The foreign volunteer from Bangladesh, a fisheries expert, provided the technical assistance required. The Bangladesh volunteer also assisted locals of other barangays with technical expertise for their fish farms.

An area of 1,000 square meters of rice paddy was turned into a fishpond. Finance to buy materials and necessities was provided by the College as a grant. The landowner’s family provided labour and maintenance, while the volunteer provided technical assistance to the landowner. The fishpond project was established and closely monitored by the
volunteer and a technician assigned by the College. After two years, as agreed, the contract of the volunteer was terminated.

The landowner and his family accepted full management of the fishpond. The fishpond was managed in concert with a ricefield, coconut plantation, citrus and rambutan fruit tree orchard, and small livestock production as well. Apart from fish for their own consumption, there was no economic return from the fishpond. The amount of time the landowner had to attend to the requirements of the fishpond was limited. Subsequently, the maintenance undertaken was not sufficient to keep the project operational. Moreover, frequent heavy rains caused damage to the dykes. Heavy rain or extensive droughts were identified by the locals as the two most serious problems of the project. A year later, during the interviews, the locals claimed the project was discontinued. The discontinuation of the Inland Fish Culture fishpond resulted in disappointment and demoralisation of Sibalew locals. Because of this failure, they refused to adopt the technology that the Bangladeshi volunteer had introduced to their barangay. Insufficient consideration of local climatic and geographic conditions, as well as the limited period of time technical assistance was available, were the main reasons given by Sibalew locals.

10.3.4 Apiculture and the Rice Mill Project

The Apiculture and the Rice Mill Project were a joint venture between the College and United States Peace Corps volunteers (Aguilar, 1990: 50). Tiers and Breems were the Peace Corps volunteers who were sent in Sibalew to initiate this project in 1988. The College organised the Peace Corps volunteers in Sibalew. The College provided the necessities needed by volunteers for the projects. Tiers and Breems secured beehives and placed them in the orchard plantations. Several months after the project was established a problem caused by chemicals sprayed in orchard plantations manifested itself. The residual spray affected the bees. The mortality rate of honeybees rapidly increased which led to the discontinuation of the Apiculture project. The citrus and rambutan orchards were dependent on the wind or other insects for pollination. The failure of this project caused Tiers and Breems to find an alternative project.

The Rice Mill was another joint venture project begun in 1989 (ASCA Information Leaflet, No. 1, 1997: 3). Through the volunteers, the project received aid of two hundred
thousand pesos from United States Peace Corps. The College was not directly involved in this project. The Rice Mill equipment was purchased and the building constructed (Aguilar, 1989a: 4). Tiers and Breems organised local Cooperatives to manage the operation independently of any outside assistance. Observations during the fieldwork confirmed the successful operation of this project in Sibalew. Once the rice mill was operational, it was financially viable, but managerial or technological assistance was supplied when required through the Barangay Council who requested assistance from the appropriate provider. Interviews with locals revealed that the rice mill saved time; there was no necessity for locals to travel and mill their rice in other barangays. The rice mill was also available for locals from neighbouring barangays.

There were claims from locals that revenue generated by the rice mill covered the operation of their Cooperative and provided a surplus. This profit was distributed to members of the Cooperative through a dividend. Few people were employed by the Cooperative to run the operation. This reduced overheads and the members profited accordingly. However, the locals insisted that arguments concerning money could not be avoided by the Cooperative management. The decisions involving the spending of Cooperative income on the repair and maintenance of equipment were often controversial. Irregular and late repayment of credit to the Cooperative by members because of crop failures and other contingencies also created argument. The locals viewed such issues as an integral part of the development process of their Cooperative.
Plate 9. Symbolic Cultural Practices of Locals. Upper: the opening of the Rice Mill Project donated by the US Peace Corps to Sibalew locals in 1988. Sue Ann Tiers, with her husband David (behind her), US Peace Corps Volunteers, cuts the ribbon assisted by Jose Ingalla, the former barangay captain. Cesar Ingalla, the incumbent barangay captain, stands slightly behind Jose, with other Sibalew officials. Sibalew locals through the Cooperative run the Rice Mill Project. Lower: a group of men make a traditional sacrifice of three chickens, pouring blood on the engine of the rice mill in the belief that the machine will work well, as well as to drive evil spirits from the project (Photo: Complements of Barangay Council of Sibalew).
10.3.5 The Native Pineapple Project

The Native Pineapple Project was introduced in Sibalew in two phases. There were different linkage agencies involved (Aguilar, 1990: 50). The College introduced the first phase of the project in 1989, and the second in 1994 (which will be discussed later). The first phase was a joint venture project between the Fiber Industry Development Authority and the Department of Agriculture. The College administered the funding and the implementation of the project. Through its students the College launched a ‘collection campaign’ of suckers from native pineapple plants to be selected for fiber production. The collected suckers were brought to Sibalew and distributed to local farmers. Scattered small plots of native pineapple were established in the calamansi, citrus and rambutan orchards. The main purpose of the plots was the reproduction of the native pineapple for fiber production in Sibalew. Volunteers for Information on Domestic Assistance were drawn from the local barangay. The volunteer members of this organisation were contracted to the Philippine National Volunteer Coordinating Agency. The Volunteer for Information on Domestic Assistance worked with the local farmers and several pineapple plots were established, scattered throughout the barangay.

In 1990, another Piña Fiber Project was opened in the barangay of Feliciano. Historically, this barangay was a popular center for the piña fiber processing and cloth weaving industry. Because of the interest in pineapple in this area, and the familiarity with the crop, the College decided to invest massive assistance in this barangay. When the project was established in Feliciano, the supervision of the Sibalew plots declined and consequently, the locals did not properly manage the plots. They concentrated their efforts instead on the rambutan and citrus orchards. The College applied intensive supervision during the establishment of this project in Feliciano. Eighteen months from the time of the establishment of the plots in Sibalew, the farmers harvested their pineapple seedlings and sold them to the Feliciano farmers. When the College paid more attention to Feliciano, the Sibalew project was temporarily stopped after the harvest of 1992.

In 1994 various contentious issues erupted over the development of the piña fiber industry in Feliciano. Vested interests grounded in the political and economic sphere created doubts, suspicion and uncertainty in the minds of the different actors involved.
The ownership of the Piña Fiber Project in Feliciano became a contentious issue between the agencies involved. As a result, the College left the project to the Feliciano locals and returned to Sibalew, where the second phase of the Piña Fiber Project was reintroduced. The College concentrated on one demonstration plot and focused attention on skills training for the processing of fiber. Training on knotting and cloth weaving were conducted. The local volunteer contracted by the Philippine National Volunteer Coordinating Agency assisted the landowner in managing the demonstration plot where the training took place. The College’s non-formal education programme, through the FYDP, handled the training.

The training, particularly the techniques used in fiber knotting and cloth weaving, provided additional income to local women. For the older women, the knotting of fiber was their preferred role in the barangay. Some young children were also involved in fiber production after they finished their studies. However, the thorns on the leaves of the pineapple plants made maintenance an unpleasant task. Consequently, they were often neglected. Local farmers confirmed that they were reluctant to expand their plots because of the hazardous nature of the plants. The farmers considered that the amount of work involved in transferring the plants to new plantations was excessive. Some Sibalew farmers also had small plots of pineapple but most of them preferred the calamansi and rambutan orchards, they explained in the interviews.
10.4 Utilities Established in Sibalew

This section discusses the four different types of utilities established in Sibalew. These were the Barangay Resource Center, Gravity Water System, the Electricity Supply and the Upland Access Road. The discussion will focus on describing how those four utilities were introduced, relate the issues and concerns that were created by a particular project, consider what locals thought about them and what benefit to the locals the utilities presented. Issues and problems associated with the construction of the projects and how the locals resolved those problems are discussed.

10.4.1 The Barangay Resource Center

The Barangay Resource Center was constructed in Sibalew during the time when the AEOP operated in this barangay (Aguilar, 1987a: 4). It was called the Barangay Resource Center because of the multiple functions it served for Sibalew locals and the College. First, it became the venue for farmers and other locals to obtain technical assistance from the Barangay Laboratory Instructors or SOAs. Second, the Barangay Resource Center served as a rest house for visitors inspecting the projects and was also used for meetings with local farmers. Third, the Barangay Laboratory Instructors and the SOAs used the building as a lodging house while they conducted outreach activities in Sibalew (Aguilar, 1987a: 4).

Jose Ingalla, the former Sibalew barangay captain, donated the land to be used for the Barangay Resource Center. The building was made of local materials and had a concrete floor. The building comprised a small lecture room, two big sleeping rooms, a kitchen, bathroom and a toilet. Locals constructed the building through the bayanihan system. The Barangay Laboratory Instructors and the SOAs were also involved. Construction materials, as well as the food supplied to the workers, were funded by the AEOP.

Previous reports showed that when the Barangay Resource Center was constructed in Sibalew the Barangay Laboratory Instructors were encouraged to stay six days a week throughout the duration of the AEOP to work with the locals (Aguilar, 1987: 4). The social interaction that evolved between Barangay Laboratory Instructors, SOAs and the locals improved the relationships that existed between them. The improvement of
relations also helped encourage a more active participation by locals in the projects (Aguilar, 1987: 4). In 1994, when the AEOP operation was terminated, reports from locals indicated that the Sibalew Barangay Council took over the Barangay Resource Center. The building was then used for various social functions such as meetings and seminars.

Accounts from locals indicated that when the Diploma in Agricultural Technology was introduced in 1988, the College again used the Barangay Resource Center to operate this programme in the barangay. Instructors assigned to administer the programme stayed in the Barangay Resource Center and used this center as the lecture area until the programme was completed in 1990. More recently, the Barangay Resource Center was used as a Day Care Center. The funding and administration of the Day Care Center was from the budget of the Barangay Council. An interview with the teacher assigned to administer the Day Care Center maintained that enrolment was limited to a maximum of forty children. Classes were held in the mornings and afternoons. Limited funding, lack of teachers and the small size of the building restricted the accommodation of more preschool children from the barangay. To gain entry to the Day Care Center, it was important for parents to place the child’s name on the waiting list as early as possible.

Locals insisted that the small size of the Barangay Resource Center would not accommodate the expected growth in the numbers of preschool children, and was likely to create problems in the future. However, parents argued that although space was limited they recognised the importance of the function of the Barangay Resource Center. As a Day Care Center, it provided an opportunity for their children to learn while parents were working on the farms. Overall, the Sibalew locals considered that the Barangay Resource Center was the source of technology, a local meeting place for social interactions, and a guesthouse for their visitors. The Day Care Center continues to the present day (2000). The Barangay Resource Center was also significant to the locals in that it was where the development of their barangay was initiated.

10.4.2 The Gravity Water System

The Gravity Water System was fed from Springs Mountain in Sibalew. The water was contained in a tank, distributed through plastic pipes, and relied on gravity. No electric
power was needed for the system to operate. The water supplied 125 households (Aguilar, 1989a: 3), more than half of the 179 households in the barangay (ASCA, 1997: 1). From the source and storage tank, the main pipes passed along the sides of ridges about 2.5 kilometres away from the center of the barangay (Aguilar, 1989b: 3). The use of the water was restricted to household purposes only and was not used for irrigation.

Locals reported that a local farmer practicing *kaingin* in 1983 discovered the spring. The information was brought to the attention of the Barangay Council. Jose Ingalla informed the College about the water available in Sibalew. Such a unique natural feature encouraged Helmar E. Aguilar, the Superintendent and later President of the College, to send a team of technicians to evaluate the area. The team was composed of an Engineer, a Forester, the Head of Outreach Projects, the Superintendent of the College and all the members of the Barangay Council. The researcher of this case study was also a member of the team when the evaluation was made in 1983.

The results of the evaluation indicated some potential for a reasonable supply of water. However, there were three major problems identified by the members of the team. The first and most critical problem was soil erosion due to the *kaingin* of the area. The second concern was the need for an efficient design of the water system and the engineering work involved. The third issue was to identify a source of funds to finance the project. The College staff saw the potential of the water to supply household needs. To exploit such a natural resource, a plan to address the three problems was devised. Consultation with members of the Barangay Council, the locals and the landowner of the area led to the initiation of the plan.

Construction of the Gravity Water System was through the Superintendent of the College. He coordinated the work with the Department of Public Works and Highways. Construction materials worth 250,000 pesos about $US13,440 was provided by this department (Aguilar, 1989a: 3). From the materials, one water tank made of concrete was constructed at the headspring or source (Aguilar, 1990: 49). The construction was by the members of the barangay council and locals, supervised by the engineer from the

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48 There was an average exchange rate of US$1=18.60 pesos in 1984 (United Nations, 1994: 967).
College. The *bayanihan* system was partly applied to construct the water tank. The College paid for the labour needed for the remaining work. Installation of the main pipes from the spring to the center of the barangay was also achieved through the *bayanihan* system. The water system began operation in about the middle of 1983 and supplied only a few households in the central area of the barangay (*ASCA Information Leaflet, No. 1, 1997: 3*).

However, the construction of the water tank did not resolve the three identified issues previously described. Accounts from Jose Ingalla indicated that *kaingin* continued. The detrimental effect of *kaingin* meant that the volume of water available was reduced through evaporation after the trees had been removed. Through the Barangay Council, Ingalla referred the problem to the College management. The College then reported back to the Barangay Council. The Council members consulted the landowner to discuss the issue. A representative from the College was also involved in the discussion. A decision was then made to designate the headspring area a watershed. This stipulation meant that the area was reserved as a containment area to maintain the water supply. Almost 3.5 hectares were reforested with mahogany trees to protect and maintain the water supply in Sibalew (Aguilar, 1994: 21).

In 1984 the College, through a joint venture project with the Department of Environment and Natural Resources, reforested the Sibalew watershed area (*ASCA Information Leaflet, No. 1, 1997: 3*). Two foreign volunteers, Syaffii, an Indonesian expert in rural technology, and Tamayama, a Japanese forestry specialist, directed the work. Syaffii was a member of the United Nations Volunteer-Domestic Development Services while Tamayama was from the Japanese International Cooperation Agency. Through these two volunteers the relationship between the College and the Department of Environment and Natural Resources improved. The agencies they were connected to were internationally renowned and the volunteers were popular amongst the locals because of the potential of their connections. Both volunteers received preferential treatment from the bureaucrats in various offices. The perceived attributes of the Indonesian and Japanese volunteers commanded considerable attention during their efforts to reforest the watershed area.

The Department of Environment and Natural Resources provided thousands of forestry seedlings and the area was reforested through the *bayanihan* of the locals (Aguilar, 1990:...
49). The whole faculty, staff, the two volunteers and most of the students from the College undertook whole-day field trips to Sibalew to replant the area (Aguilar, 1990: 49). This combined effort enhanced the relationship between all the people involved. Locals later considered the involvement of the whole faculty, staff, students, volunteers and locals in the reforestation exercise as a very symbolic and historically significant event in Sibalew. The locals acknowledged that it was the first time that such cooperation had occurred in the history of their barangay. The locals were impressed that such cooperation could exist. Furthermore, the locals realised the importance of the watershed to their barangay and kaingin was no longer practised in the area.

Although kaingin was discontinued in the watershed, the availability of water for other houses proved to be a difficulty. Lack of funding and the physical limitations of a gravity-fed water system were problems. Households near the main pipelines enjoyed an abundant supply of water while the locals in households located further away or at a higher elevations were disadvantaged. The Sibalew Barangay Council explained the problems to the Japanese volunteer. Through the Barangay Council, the Japanese volunteer consulted with the locals and the two problems were discussed. The Japanese volunteer, Toshihiko Tamayama, was convinced that the problems had the potential to create animosity amongst the locals and an early solution was necessary.

Toshihiko Tamayama also acknowledged that the limitations of the water system could hinder the outreach projects. The meetings with the locals resulted in an initial plan to improve the water system. The Japanese volunteer designed two extra water tanks that were connected to the existing water system. The plan of the pipeline layout was made through consultation with the locals. Tamayama endorsed the plan and applied for a grant from the Japanese International Cooperation Agency. The College supplied supporting evidence and also presented a submission to this agency. Unexpectedly, the Japanese International Cooperation Agency granted PhP180,000.00 (Aguilar, 1989a: 3). The money was released directly to the Japanese volunteer who administered the improvement of the water system project in Sibalew with the support of the technical staff of the College.

Construction of the two supplementary concrete water tanks and pipelines to connect more households was completed in the middle of 1986 (ASCA Information Leaflet, No. 1,
1997: 3). Toshiheko Tamayama supervised the construction and some locals gained employment during the period. The bayanihan system was applied where appropriate. However, Toshiheko Tamayama paid locals for most of the work in order to expedite construction. The task took a total of three months to complete. At completion of the work, a one-month maturation period was demanded by Toshiheko Tamayama to allow the water to cure and to purify the tanks.

The new water tanks were tested before the Japanese volunteer turned over the project to the locals. A social gathering was organised for the ceremony and it was held in the multipurpose pavement area, an open-air venue, in the barangay. Locals prepared traditional food, roast pork, chicken, and drink, including coconut wine and beer. The College higher officials, some of the staff involved and the representative from the Japanese International Cooperation Agency were invited guests. The local councillors, College officials and the Japanese International Cooperation Agency inspector delivered ceremonial speeches. The barangay captain, who represented the Barangay Council, responded to the guests, and acknowledged the Council's responsibility for the management of the project. Toshiheko Tamayama and representatives from the College and Japanese International Cooperation agency cut the ribbon to declare the official opening of the project. After the ceremony, both the locals and visitors joined together to eat.

The visiting Japanese official inspected the water system modifications and was impressed with the effectiveness of the system and the low costs involved in such a scheme. He was further impressed that the locals were very pleased with the way work had progressed. Toshiheko Tamayama's accomplishment strengthened the relationship between the College and the Japanese International Cooperation Agency. As a result, another Japanese volunteer was later engaged as a replacement for Toshiheko Tamayama. He worked on vegetable production, and was recognised as an expert in this field. Most of his work was performed within the College, but he also worked for some time in Sibalew and, occasionally, other barangays.

The Barangay Council administered the water system. Toshiheko Tamayama monitored the performance of the Barangay Council. He continued to do so, and also assisted in College forestry projects at the campus until his contract expired early in 1988. In
general, the locals appreciated the significant contribution made by the Japanese volunteer to their barangays. The introduction and extension of the water system was a significant episode in the historical development and transformation of Sibalew. *Kaingin* in the watershed ceased, the area was reforested, some locals had gained employment during the construction and had earned extra income, and water storage was improved. The locals confirmed that the increased capacity of the water storage allowed 125 households (Aguilar, 1989a: 3) to be connected out of a total of the 179 homes in the area (ASCA, 1997b: 2).

Although the water system was considerably improved, other controversial issues emerged concerning its use. Accounts from barangay officials indicated that the increased number of households dependent on the water system also demanded a greater volume of water per household. The availability of water from Springs Mountain was not enough to supply the water needed by the increasing number of households, particularly during summer. The prevalence of long droughts also affected the supply of water to the households. The shortage of water created problems between households when arguments erupted over the perceived amounts of water neighbours used. This was an unexpected problem early in the project. The primary objective for the development of the water system in Sibalew was to provide a constant supply of good water to the locals. The demographic, technical and climatic conditions combined to jeopardize the best efforts of those involved in the water system. The distribution of water continued to be problematic.

In summer, the locals insisted that the supply of water was unequally distributed. Households located in higher situations were disadvantaged compared with those in lower positions in the barangay. Jose Ingalla noted during the interviews that from February to May, the summer period, the locals in higher locations experienced water shortages. They became agitated when they saw that those who lived in lower areas enjoyed an abundant supply of water throughout the year. Ingalla mentioned that the Barangay Council took notice of these problems and tried to address them in their meetings. The operating cost of the maintenance of the water system was another problem identified by the Council.
According to Ingalla, it was through the Barangay Council that the Sibalew Water Works Association was inaugurated. The Sibalew Water Works Association addressed the problem of the water shortage. The maintenance of the pipelines was also successfully resolved. A monthly water maintenance fee was collected from members through the Sibalew Water Works Association. A schedule for water distribution during summer or times of crisis was arranged and was supported through the cooperation of the members. To maintain the members’ cooperation the locals suggested the historical development of the water system should be preserved. The part played by Tamayama in extending the system, and the reforestation of the catchment’s area had improved life for all the people. Ingalla was adamant that the young people should be made aware of the importance of the project to life in the barangay, would be likely to make them appreciate and respect the water system and conserve the use of water in their daily lives. From observations during this fieldwork it was noted that the young did try to conserve the use of water and there was obvious respect for the system generally.

10.4.3 The Electrification Project

In 1985, the installation of an electricity supply to the households in Sibalew brought unprecedented development (ASCA Information Leaflet, No. 1, 1997: 3). Electricity was the next utility installed in Sibalew after the water system was established in this barangay (Aguilar, 1989b: 3). Electricity provided convenient living for locals, but on the other hand also created some problems in Sibalew. The loss of traditional local moral values and the inefficiency, through lack of a reliable supply, of the electricity were examples of some of the troubles this utility brought to the barangay.

Like the water system, electrification in Sibalew was undertaken through the College and the Aklan Electric Cooperative under the rural electrification programme in the province. Sibalew was the only barangay in that remote area to get electricity. The Aklan Electric Cooperative that administered the electricity supplied 10.3 Megawatts to 36,000 households in 17 municipalities of Aklan (1996 Provincial Socio-Economic Profile: 124). The Palimpimon Geothermal Plant in Nigros Island provided the power supply that the Aklan Electric Cooperative supplied in Aklan, from the neighbouring island (1996 Provincial Socio-Economic Profile: 65).
The Aklan Electric Cooperative subsidised the cost of electrical materials such as poles and wiring for the installation of the electricity supply in Sibalew. From the major transmission lines, the power poles were distributed along the roadside about three kilometres to the center of the barangay. Installation of the poles was through bayanihan in the barangay. This meant free labour from the members of the Barangay Council and some locals. The Barangay Laboratory Instructors and SOAs were also involved. The technicians from the Aklan Electric Cooperative did the wiring (Aguilar, 1994: 22).

The installation of power lines in Sibalew provided the locals which access to electricity from the Aklan Electric Cooperative. It is suggested that it was assumed that with the electricity the locals would have a more convenient way of life. The rural people would then have the same opportunity as those in urban areas. In Sibalew, the Aklan Electric Cooperative supplied electrical materials and technicians to connect the electricity to the houses. However, the labour incurred in the task of connection and the cost of materials, such as the meter boxes, lights, wiring and the insulated wire connecting the house to the main power lines were paid for by the house owners. Houses not connected to the electricity supply used kerosene for their lighting and an automotive battery to operate appliances.

Accounts from locals indicated that there were some problems at the early stage of the electricity installations in the houses. The processing of applications for connecting houses was the main issue. Some households had a regular source of income while others had irregular income or very little income at all. The locals insisted that those households with a regular source of income received preferential treatment in having their applications processed, while those with small or irregular incomes felt disadvantaged. Jose Ingalla, the barangay captain, insisted that this problem had existed in other barangays before the electricity was installed in Sibalew. However, locals were keen to take advantage of what electricity could offer them in entertainment and the convenience of electric light. Ingalla argued that those processing the application forms ignored locals who did not have enough income to pay for the connection.

In Sibalew, the 179 households were scattered sparsely in the barangay. Because of this the distribution cost of electricity was more expensive for the households further from the power lines. Some households were grouped into units. As many as five separate
households shared the costs of the wires. Others, who could afford to buy the wiring, connected independently. A recent report by the College indicated that while the majority of the households in Sibalew used electricity supplied by the Aklan Electric Cooperative, most used firewood for cooking (ASCA, 1997: 22). Previous reports also claimed that the installation of electricity improved the living conditions in Sibalew (Aguilar, 1990; 1989a and 1989b). Sibalew locals confirmed this during the interviews. The locals argued that the electricity supply had provided convenience but at the same time it also created problems in the barangay.

A local farmer who shared the electricity with his neighbour described an interesting example. The farmer's house was about one kilometre away from the power lines. The farmer explained that because he could not afford the cost of connection from the power lines, he negotiated with his neighbour to share the electricity and the payment of electricity bills. After several months, he purchased a new stereo and television set. Because the farmer's house was located higher, and his young children sometimes played their stereo louder, his neighbour complained about the cost of the electricity bills. The farmer said that he also paid an additional amount for his share of the electricity bill to his neighbour regularly. A year later, and without any reason, his neighbour advised him to install a separate connection to the power lines. The farmer installed the separate connection to his house. However, he argued that the payment of the electricity bill was not the problem. He noted in the interview that his neighbour felt envious when he purchased the stereo and television sets.

Ingalla maintained that the installation of power lines in Sibalew encouraged the locals to work hard on their farms in order to be connected. The College introduced modern agricultural methods that were adopted by locals, agricultural production improved, orchard plantations rapidly expanded and farming income increased. Ingalla explained that the number of households connected to the electricity supply reflected the increased income. The locals purchased electrical appliances for the convenience and relaxation of their families. Stereo and television sets, refrigerators, electric fans and irons were examples of appliances commonly found in their homes.

Through such appliances the locals became aware of the convenience that electricity provided. Moreover, they became increasingly aware of the outside world and the
opportunities for earning extra income. For example, some locals claimed that by using their refrigerators, they produced refreshments such as ice candies, and earned additional money. Others who had television and video sets conducted movie shows in their houses, thus providing extra income for their families. Although the locals perceived electricity as important, they acknowledged the problems that came with it to the households.

A major problem concerned the regular payment of electric bills. The arrival of the account often created economic pressure for the recipient. There were also indications of competition arising between families in a race to acquire new and modern appliances. The Sibalew elders complained of the loud noise emanating from stereos and televisions. The sound, they complained, distorted the natural environment and reflected the declining moral values of the young people in their barangays. Sibalew parents asserted that their children spent more time watching television programmes than doing their homework at night. Similarly, local farmers admitted that work on the farm was sometimes delayed because they were watching an interesting television programme. Another problem that annoyed the locals was the frequent occurrence of blackouts that also caused damage to their appliances. The high cost of repairs disappointed locals.

10.4.4 Upland Access Road Project

In 1987, the upland access road was constructed in Sibalew. It was another of the utilities that had symbolic historical value to the locals and helped the continuous agricultural development in this barangay (ASCA Information Leaflet, No. 1, 1997: 3). The upland access road ran from the center of Sibalew, through the upland areas and continued to the next barangay. Previous reports indicated that the construction of the upland access road was completed during the time of Tiers and Breems, the Peace Corps volunteers who introduced the apiculture and rice mill projects in Sibalew (Aguilar, 1989b: 4). Sibalew locals claimed that Tiers and Breems exercised some influence to obtain funding for the construction of an access road to their barangay. The road provided access for local farmers so they could expand their orchard plantations in the upland area, and later the locals used the road to create new types of business.
The upland access road was constructed in Sibalew through the 1.3 million pesos ($US59,825.13)\(^{49}\) grant from the United States Agency for International Development (Aguilar, 1989a: 4). The College also acknowledged that Tiers and Breems, who lived for two years in Sibalew, had influenced the United States Agency for International Development who funded this construction. Sibalew locals indicated that the road was a reward for the progressive development in Sibalew arranged by the Peace Corps Volunteers and the College staff. It was noted that the United States Agency for International Development also funded the AEOP initiated in 1983.

Similar to the other development projects, the construction of the upland access road in Sibalew was organised through the College and various linkage agencies. The work was accomplished by employing locals who manually constructed the 2.5 kilometres of road. The locals were organised into groups who contracted for the road construction by spans. During the interviews, locals insisted that there were about ten groups involved. Each group had from 10 to 15 members and they were usually close relatives. The group members performed manual labour: digging and filling to level the road. The field personnel from the United States Agency for International Development administered the construction. The technical staff from the Department of Public Works and Highways were involved in the construction. The Provincial Government provided the dump trucks used to haul gravel for the road.

Sibalew locals declared that the upland access road was of significant value to the development of their barangay. It was significant because manual labour, as opposed to machinery, was used to construct the road. The locals argued that although the construction had involved hard physical labour, the job had provided them with some temporary employment and they had earned extra income. The locals explained that some of them were able to purchase appliances and pay outstanding debts to their relatives.

Others mentioned that the social interaction that took place during the building of the road was an important event in their lives. This was largely due to the various activities

\(^{49}\) There was an average exchange rate of US$1=21.73 pesos in 1989 (United Nations, 1994: 967).
they were involved in after work. In particular, the locals explained that the social drinking sessions provided them a chance to discuss their ideas with the engineers and field staff of the Department of Public Works and Highways. They also had the opportunity to discuss issues with the representatives from the United States Agency for International Development. The locals acknowledged the skill of the engineers who designed the road. However, the locals argued that designing the road was far different from implementing the design. This was particularly the case when the actual situation was experienced and when construction was done manually. The locals claimed that while the engineers were learning from them, they also learned how to deal with the engineers to avoid delays.

After the road was constructed there was rapid and extensive development in Sibalew, locals explained. The expansion of orchard plantations in the upland area, construction of new houses and an increase in road traffic were signs of development. The upland access road provided continuous support for agricultural development and introduced new livelihood activities. Motorbikes used by some families were also used for passengers. Some locals were prepared to pay for the comfort of riding to the market days rather than walking. Since the inception of the roadway, no one wanted to walk any more.

An account from the first owner of a motorbike to operate a passenger business in Sibalew claimed that he started the business early in the 1990s. He explained that in the first months of carrying passengers several minor accidents occurred. His single motorbike carried three or four passengers, including the operator, by using an extended carrier behind the rear wheel. Because of the number of passengers and the irregularities of the terrain, he admitted that balancing was difficult and some passengers were injured. However, several months later, he mentioned that the passengers had learned and adjusted their techniques. In particular, the elderly found it difficult to get on and off the motorbike. Thereafter, the motorbike became a popular form of transport for the locals, although there was one Jeep for passengers that operated in Sibalew.

In 1998 when fieldwork was conducted in Sibalew there were thirteen motorbikes available for hire and they operated regularly in the barangay. Reports from group discussions with the operators revealed that they provided comfortable transportation. However, they revealed that with the increased number of motorbikes their incomes had
been reduced and competition was fierce. This problem was aired at a meeting of the Barangay Council where issues and concerns regarding the operation of motorbikes in Sibalew were identified.

The operators presented four main issues during their meeting with members of the Barangay Council. First was the growing competition for passenger business in the barangay. Second was the speeding and subsequent accidents in the barangay. Third were the concerns involving overloading and the lack of precautionary measures to avoid accidents. The final issue was the desire to operate the motorbikes in a safe and comfortable manner in Sibalew. After these issues were identified, the operators explained that the Barangay Council and the Sibalew motorbike operators formed a local association to address safety issues. The association also improved the safety of local pedestrians, particularly children.

Operators who were members of the association helped draft local policies. Schedules were imposed on the operators. Seminars for deviant operators were conducted and road signs installed. Another initiative was the barangay road toll imposed and collected by the Barangay Council who managed and maintained the barangay road. Though the Sibalew Motorbike Drivers Association and the Barangay Council the motorbikes continued to operate in Sibalew. Developments increased after the upland access road was constructed. The orchard plantations were expanded in upland areas. There were a number of new houses constructed and an increase in local traffic.

The locals acknowledged that manual labour was symbolic. It had considerable value to them in the historical development of Sibalew. The locals were employed and earned extra income. That was an important aspect of the development project in the barangay. However, locals remembered that there was a vast difference in the designing of the road and the physical labour required building it in that terrain. Informal drinking sessions after work clarified issues between the designers and the workers involved, thereby avoiding delays in construction. In general, the access road aided the continuous development of the barangay and improved access to and from farms and the market. This, in turn, led to rapid agricultural improvement. Some locals used the road to initiate a motorbike passenger business.
Plate 11. Local Public Transport in Sibalew. Upper: single motorbikes traverse difficult terrain and can carry up to six passengers. Lower: a typical Filipino jeepny, locally hand built, with a diesel motor, capable of carrying up to thirty people, with some on top of the vehicle. The roof is also used for transporting produce to and from the market (Photo: R. L. Saladar, 1998).
10.5 Summary

This chapter examined the various interventions associated with the three agricultural education programmes promoted by the College in Sibalew. There were linkage agencies involved that enhanced development at Sibalew. There were social, cultural and political elements to the relationships between the actors involved in the livelihood projects and utilities in Sibalew. Those elements forged the relationships between the linkage agencies, the college staff involved, local officials and the locals, all of whom had a common interest in the development of Sibalew.

The improvement in agricultural production in Sibalew was achieved through various interventions. Financial, technical and material resources from local, national and international aid agencies were combined in Sibalew and the livelihood projects and utilities were established. In Sibalew these included the Livestock and Poultry Project, Barangay Horticulture Nursery, Inland Fish Culture Project, and the Apiculture, Rice Mill Project and Native Pineapple Projects. The adoption of the introduced technology gradually improved the income of the locals but some projects were not suitable to local cultural practices, the geographical location, or the climatic conditions of the barangay.

Although the various types of livelihood projects provided some options for the Sibalew locals there was concern over the suitability of the new technology in the barangay. For instance, the Livestock and Poultry Project required massive capital investment, there was a higher risk of disease, only limited areas were available for such a scheme, and consistently low prices were generated. The animal project was not a financially viable option for Sibalew locals but it was a favourite pursuit in the other rural barangays. The Barangay Horticulture Nursery was considered crucial for the success of the projects in the early stages of the orchard plantations. But with the spread of orchard plantations the communal nursery became less important and was eventually abandoned. The Inland Fish Culture Project was the most controversial livelihood project in Sibalew. Insufficient consideration of local climatic and geographic conditions and limited technical assistance led to the failure of the project.

The Apiculture and the Rice Mill Projects illustrated the way that various agencies were prepared to experiment to find suitable strategies to generate a return for Sibalew
farmers. The lesson learned by the Sibalew locals and those providing assistance for the Apiculture project led to the construction of the Rice Mill Project. The Native Pineapple Fiber Project was another well-intentioned scheme but the production of piña fiber was difficult. The sharp thorns on the leaves of piña plant and the amount of work involved made the Sibalew locals reluctant to cultivate it in larger plots. Piña fiber production was less attractive to Sibalew farmers than citrus and rambutan orchards.

The Barangay Resource Center, Gravity Water System, Electricity Supply and the Upland Access Road were important utilities established in Sibalew. They supported the diversification of agricultural production and provided opportunities for other forms of income in the barangay. Local, national and international aid agencies provided financial, technical and material support for the construction of the utilities in Sibalew. The development of the utilities had a symbolic and historical significance for Sibalew locals. All the utilities provided benefits to the locals, particularly in changing farming from subsistence to a market-oriented enterprise. However, the utilities also helped introduce some negative aspects to the traditional Sibalew rural lifestyle and were instrumental in the sociocultural transformation of this barangay.

The Barangay Resource Center building, for example, had multiple functions for Sibalew locals and the College staff. Sibalew locals considered the building a source of technology, a local meeting place for social interaction and a guesthouse for visitors. Later, although the building had limited space, the Barangay Resource Center was converted to a Day Care Center and served another purpose for the locals. The development of the Gravity Water System in Sibalew was dramatic. Local and international agencies were involved in the construction of this utility. Sibalew locals considered the Gravity Water System symbolic. The system had historical significance to the locals of Sibalew, the College staff, selected students, the Japanese volunteer and other agencies. More than half of the households were connected to the water supply. Locals were aggravated by a shortage of water at times. The technical factors, demographic dispersal, and climatic conditions combined to confound the best efforts of those involved in the water system. The distribution of water continued to be problematic and an association was created to settle the ongoing disputes.
The electrification of Sibalew was sudden and brought dramatic change to local sociocultural practices. Electricity provided convenience for some locals but many argued that the commodity increased social disharmony and economic pressure on families. Sibalew locals were encouraged to earn extra income to accumulate appliances and pay for their increasing use of electricity. Television and other electrical appliances were commonplace. Sibalew elders were concerned for the moral values of their young children when they noted the behaviour exhibited by outsiders through television. The changed social behaviour of young people contradicted values held by the elders in the barangay. Electrification also brought frequent blackouts to Sibalew. The interruptions aggravated locals and damaged their appliances, which were expensive to repair. Sibalew locals were disappointed with the unreliable supply of electricity in the barangay.

The final utility discussed was the Upland Access Road built in Sibalew. The road strengthened the economic development of Sibalew. Access from farms to the market was improved, farming was diversified and there was an increase in various types of new family-based businesses. Overall, the livelihood projects and utilities established in Sibalew increased some pollution of the local environment. Excessive application of commercial fertiliser to crops concerned the locals. Although pollution in the area was tolerable, particularly the creek water, the harmful effects of heavy applications of fertilisers and other chemicals were apparent on the orchard plantations. Production was dependent on commercial fertiliser. In the traditional orchards fertilizer was not necessary. The harmful effects of the chemicals sprayed on the orchard plantations were noticed in the health of domestic animals and the effects of over-spray on other projects. The unsuccessful introduction of the Apiculture Project was an example.

In general, this chapter emphasised that the overall result of the external agency interventions was the economic development of Sibalew. However, the local price of economic development was the deterioration of Sibalew’s natural habitat, although it was tolerable compared to nearby urban areas. Agricultural production became dependent on the application of commercial fertilisers and some farmers used excessive amounts of pesticide and chemicals. The proper use and maintenance of utilities continued to be problematic and controversial. Some of the issues were illustrated in this chapter. The leadership styles of the local officials and the local cooperative and association were crucial to settling ongoing disputes. The local sociocultural practices that were affected
could not be disregarded as merely an integral part of the transformation that occurred in Sibalew. This will be examined in the next chapter.
Chapter Eleven

Sociocultural and Economic Transformation in Sibalew

11.1 Introduction

This chapter examines elements of the sociocultural transformation in Sibalew as a result of recent economic development. The discussion is organised into four areas beginning with the concepts behind the transformation in Sibalew. Next there is a discussion of the economic improvement and sociocultural practices as evaluated by the College in previous reports. The change on labour process is discussed, followed by consequences of technology-transfer and the impact of economic improvement on sociocultural processes on the locals. Finally there will be a summary of the sociocultural transformation that occurred in Sibalew between from 1983 to 1998.

11.2 Concepts Behind the Transformation of Sibalew

This section describes the concepts behind the modernisation theory used in Sibalew’s sociocultural transformation. A critique of the theories of modernisation will be presented to help explain the assumptions postulated by modernisation theory and to indicate some of the weaknesses of that theory. The consequences of the implementation of such strategies are then explained with regard to the local traditional and cultural practices in rural communities. The knowledge gained from the investigation will be used to examine critically the transformation that took place in Sibalew.

The concept behind the transformation that took place in Sibalew over fifteen years during the integration of external programmes and resources in this barangay was examined. The aim of the College was to develop Sibalew into a model barangay through integration of internal and external resources in order to improve the economic circumstances of the locals. The notion of using Sibalew as a model was based on the assumption that once the traditional farming practices were improved, there would a “positive transformation in the quality of life of the rural inhabitants” (ACC-AEOP Implementation Plan, 1980: 2). The economic development which occurred in Sibalew was expected to “trickle down” to other barangays. Such a notion is common in modernisation theory, which postulates that “once economic growth has been attained,
the whole population will reap the rewards" (Gardner and Lewis, 1996: 15). The idea is often criticised as an optimistic analysis of development that suggests modernisation could be obtained in an easy process (Gardner and Lewis, 1996; Gabriel, 1991).

Under modernisation theory, the local cultural practices are generally ignored by planners and treated as one of the major "constraints" in economic development (Gabriel, 1991: 29; Gardner and Lewis, 1996: 15). Such an approach in development has been criticised by many authors who describe this as a 'top-down' approach (Reid et al., 1996; Jiggins, 1993; Long and Long, 1992; Cernea, 1991; Goodman and Redclift, 1991; Chambers, 1983). A classical example was the "diffusion model" developed by Rogers (1983), which was introduced to developing countries such as in the Philippines. The assumption of such a model was that the individual farmer would follow five steps in making decisions to adopt the introduced technology: knowledge, persuasion, decision, implementation and confirmation (Rogers, 1983: 163).

However, in actual situations the farmers did not follow the five steps as suggested in the diffusion model of Rogers (Guerin and Guerin, 1994: 551). The application of the diffusion model of technology-transfer has been widely criticised because it does not alleviate rural poverty. Rather, it has increased the social inequality in rural communities of underdeveloped countries (Reid et al., 1996; Jiggins, 1993; Long and Long, 1992; Cernea, 1991; Goodman and Redclift, 1991; Chambers, 1983).

In order to understand what transformation meant in local communities such as Sibalew, the "optimistic concept" of modernisation theory must be set aside:

Objective 'truth' has been replaced by emphasis on signs, images and the plurality of viewpoints: there is no single, objective account of reality, for everyone experiences things differently. Post-modernisation is thus characterised by a multiplicity of voices (Gardner and Lewis, 1996: 21).

Basic utilities such as the water system, access roads and the installation of electric power lines introduced "positive transformation" to Sibalew: changing local ways of life from traditional into urbanised lifestyles as envisioned by the College (AAC-AEOP Implementation Plan, 1980: 2). Further details on processes of how the staff of the College and locals from Sibalew worked together to set an example of transformation in the local context of Filipino society will be discussed later. The immediate concern is to
examine what changes transpired, particularly farming practices, social structure and the cultural behaviour of locals in Sibalew over fifteen years. The examination is through describing accounts from interviews and discussions with different groups of locals’ reports from College staff, and observations undertaken during the fieldwork of the thesis.

11.3 Evaluation of Sociocultural and Economic Change in Sibalew by ASCA

At the macro level, accounts from interviews and group discussions revealed that despite economic improvement in Sibalew, the locals considered themselves ‘poor’ in the wider Filipino context, living below the national average income level. However, Sibalew locals argued that their current economic conditions were better than those that existed in the late 1970s. A benchmark survey conducted by the College at Sibalew showed that in 1983 the monthly average family income was PhP1,072.94 ($US76.65)\(^{50}\) with an average household expenditure of PhP1,033.50 ($US73.82). Ninety two percent of Sibalew locals had houses made of local materials with an open pit type of toilet. Dug wells and creeks were the main source of water for household use. No electricity existed in Sibalew (Baseline Survey on Barangay Sibalew, Undated: 27).

In 1989, Quintana (1989) assessed the diffusion of the Agricultural Outreach Project at Sibalew. He reported on the incomes of farmers obtained from rice farming, livestock production and wage labour. The average income earned through rice farming was PhP2,500.50 per hectare. In livestock production the amount was PhP1,334.89 and the average income from wage labour was about PhP3,500.50, a total of PhP7,335.89 ($US337.59)\(^{51}\) annually (Quintana, 1989: 102). The land tilled increased from 0.42 to 1 hectare and rice and livestock production improved dramatically. However, Quintana was not able to quantify the income from orchard plantations. He mentioned that farmers had also grown banana, citrus, pineapple, jackfruit, mango and rambutan as well. His findings revealed that the AEOP had a satisfactory impact on Sibalew, particularly for

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\(^{50}\) There was an average exchange rate of US$1=14.00 pesos in 1983 (United Nations, 1986: 44).

\(^{51}\) There was an average exchange rate of US$1=21.73 pesos in 1989 (United Nations, 1994: 967).
farmer co-operators. The AEOP enhanced the College's effectiveness and credibility in development, particularly with regard to the dissemination of technology to the rural barangays. Quintana concluded the AEOP improved the attitude of farmer co-operators. They "aspired for better for their children, longer lives, better housing, increased production and better education, lighting and water facilities for the community" (Quintana, 1989: 106).

In 1990, Agustin conducted another study to investigate the sustainability of the outreach projects assisted by the AAC-AEOP laboratory demonstration project at six barangays and Sibalew was one of those. The aim of the study was to examine the prevailing economic position of the farmer co-operators and to find out the differences in the sustainability of the farmer co-operators projects. The investigation was undertaken using structured questions randomly distributed to 206 farmer co-operators in the barangays of Agbanawan, Polocate, Sigcay, Dingle, San Isidro and Sibalew. Agustin reported that most of the farmer co-operators were relatively old, an average of 52.8 years-of-age. He maintained that about one-third of the 206 farmer co-operators had attended school to the level of elementary grade (Agustin, 1989: 113). Agustin indicated that 34 percent of farmer co-operators were tenants and the majority had other sources of income, particularly from their children who worked as domestic help or worked abroad.

Agustin stated that the Students Outreach Agents, the university students who conducted an outreach project in barangay, encouraged all the farmer co-operators to persevere with their income-generating projects, and provided further assistance in technical expertise, planting materials and finance. After such assistance, the majority of farmer co-operators were able to establish crops and animal projects, and the utilisation of land, per farmer co-operator, was extended from 0.80 to 1.32 hectares. Agustin (1990) mentioned that of the income-generating projects established, citrus, other fruits and vegetables had a higher percentage of continuance by farmer co-operators. The animal projects, poultry and swine, had less continuance due to pest and disease. However, another contributory factor, not mentioned by Agustin, was the higher cost of maintenance. The expansion of land utilisation initiated an increase of income for farmer co-operators from PhP7,974.20
to an annual income of PhP12,046.20 ($US497.57)\(^2\) in 1990 (Agustin 1990: 113).

Agustin summaries the income of farmer co-operators from the six barangays in the table below:

Table 1. Income Derived from Crop and Animal Projects per Cropping.

<table>
<thead>
<tr>
<th>Income/Cropping</th>
<th>Mean (N=206)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crop Projects</strong></td>
<td></td>
</tr>
<tr>
<td>Citrus</td>
<td>P5,757.00</td>
</tr>
<tr>
<td>Rice (rainfed/upland)</td>
<td>4,616.00</td>
</tr>
<tr>
<td>Vegetables</td>
<td>1,065.00</td>
</tr>
<tr>
<td>Pineapple</td>
<td>42.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>P11,480.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Animal Projects</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Piggery</td>
<td>P386.00</td>
</tr>
<tr>
<td>Poultry</td>
<td>180.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>P566.00</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td>P12,046.00</td>
</tr>
</tbody>
</table>


In general, Agustin argued that although there was considerable economic improvement for farmer co-operators, the income from the projects was considered as a low level of family income in the wider context of Filipino society. However, in the rural barangays, the income of the farmer co-operators in Table 1 was above the poverty line prescribed to rural areas: PhP3,736.50 as reported in 1985 (Agustin, 1990: 59)\(^3\). Compared with the lower strata of Filipino society, the farmer co-operators were economically and technically advantaged. The farmers who received AEOP–AAC assistance generally were better off financially than farmers who had not been assisted.

Agustin (1990: xviii) considered that of the barangays he studied, the crop and animal projects at Sibalew were significantly different from those in the barangays of Agbanawan, Polocate, Sgcay, Dingle, and San Isidro. The farmer co-operators continued to maintain their projects but they were not producing as effectively as they might have been compared with Sibalew. This was particularly the case after five years when the

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\(^2\) There was an average exchange rate of US$1=24.31 pesos in 1990 (United Nations, 1997: 295).

AEOP funding terminated. Based on such findings, Agustin suggested that the "lessons gleaned from the Sibalew experiences may serve as a basis for designing outreach strategies for future rural development projects" (Agustin, 1990: 118).

Such a suggestion is an example of the belief by some observers and developmental initiators, particularly technocratic policy makers, that the lessons learned from Sibalew could be replicated in other places. However, it could be argued that to design appropriate sustainable rural development projects based on this belief fails to take account of the development of social capital. There are other associated issues, such as the networks of interactions between staff of the College and locals of Sibalew, the extensive period of funding provided by the College to Sibalew and the individual personalities involved. All of these elements determine the effectiveness of such projects, but are often not taken into consideration by technocratic planners and management.

Another deficiency of such a belief is the managerial expediency of providing assistance specifically to those farmers with enough resources to be able to continue the programme long-term by using their own resources. Such a strategy, if pursued, would favour farmers with those resources, while the poorer farmers would be unable to continue with the programme due to a lack of resources, advice and expertise. A reason suggested by Pretty and Chambers is that:

Many agricultural institutions, whether universities, research organisations, or extension agencies are characterized by restrictive bureaucracy. They have centralized procedures. Personal promotion and institutional survival depend less on external achievement, such as farmers adopting the products of research, and more on internal criteria, such as performance according to professionals norms. Such institutions are sustained by modes of learning which present misleading feedback from the peripheries, giving falsely favourable impressions of the impact of their packages and programmes (Pretty and Chambers, 1994: 184-185).

Further, Pretty and Chambers (1994: 185) suggest that to overthrow such shortcomings, new institutional settings should be developed. In so doing, Pretty and Chambers posit:

Institutions that respond better to open learning environments and participatory methods must be decentralized, with multidisciplinarity, flexible teams, and outputs responding to the demands of farmers. In these conditions, personal promotion and institutional survival should depend more on external achievement. The new institutions will be learning organizations, with realistic and rapid feedback flows for adoptive responses to change. Multiple realities will be understood through multiple
linkages and alliances, with continuous dialogue between different actors (Pretty and Chambers, 1994: 185).

Such a paradigm, Pretty and Chambers contend, should be developed through recognition of past experiences which then may be applied to other domains or undertakings (Pretty and Chambers, 1994: 185). This contention by Pretty and Chambers challenges the researchers, planners, policy makers and institutions accountable for the agricultural development in rural communities. In this regard, an analysis of the impact of introduced technology at Sibalew on the local people may provide some insight of the problems created in such a transformation. There is an opportunity, using Sibalew as the exemplar, to further improve the effectiveness of such projects. While the technocrats may provide unrestrained assistance in the establishment of such projects, and continue that assistance for some time after, there are factors that even the most well-intentioned technocrat cannot be expected to address.

There are other reports that documented the College’s Laboratory Demonstration Projects at Sibalew (Aguilar, 1989a; 1989b; 1987). Those reports illustrated the College’s aspirations, achievements and readiness to develop an integrated approach. For example, there were strategies to help small farmers in Sibalew by sharing College resources and teaching farmers the innovative technology that they could apply on their own farms (Aguilar, 1990: 47). Reports also showed the effectiveness of an “integrated approach” as a way of obtaining resources from various development agencies to develop Sibalew as a model barangay for technology-transfer (Aguilar, 1989a; 1989b; 1987).

While these reports generally indicated an excellent performance by the College in rural development, the reports also illustrated some bias or subjectivity on the part of the producers of the reports. While the accomplishments were emphasized, many problems encountered were not detailed to the extent they might have been. This practice, not unique to Filipino society, could be a result of the ‘top-down’ approach, where accountability sometimes transcends accuracy to the detriment, in the final analysis, of the intentions of those involved. It could be suggested that a more critical analysis would have been more beneficial to all parties in the long-term.
The problem in this instance is that there is an inherent conflict in the funding of, and accountability for, such projects. In other words, the continuation of the funding depends, to some extent, on satisfactory progress reports regarding the work in hand. Such a process means that particular expectations must be met in projects and assessment reports, in order to assure the funding provider that the project is successful and conforming to the criteria stipulated by them. In the case of the Sibalew demonstration farm, it was unlikely to have received funding for such an extended length of time, if reports had contained a larger amount of critical analysis than they actually contained. Grants were obtained from local, national and international aid agencies that were then integrated to provide enough resources to maintain Sibalew for such an extended period (Aguilar, 1994; 1990). Aguilar (1990) explained that the integration of resources in Sibalew brought considerable economic benefit to the locals. Aguilar’s concluding statement in his report was as follows:

The results of AAC’s efforts to extend assistance through its integrated strategies to the inhabitants in Barangay Sibalew may serve as a model to all agricultural schools to adopt. This may even be the generating force or instrument to bring the government closer to the people in an effort to sincerely articulate its programs towards equity. This scheme may also contribute much in bridging the gap between the many who are poor and the very few who are very rich. In the process, hope among the disadvantaged may be revived as a concrete assurance for a better life (Aguilar, 1990: 51).

To improve further the integrated strategy described by Aguilar (1990: 47-51), policies would take more account of the traditional and cultural practices of local people. A study conducted outside the Philippines by Francis O’Gorman (1995: 206-17) argued that:

To bring about change, to eliminate impoverishment, means transforming the socio-economic patterns of development – patterns which have been perceived as progress – modernisation and capital accumulation which favour the social strata in control. Base community groups integrate this kind of thinking into their project planning and evaluation. [O’Gorman argues] ...however, their [locals’] potential empowerment for transformation is curtailed by the social, economic, political and cultural forces that maintain the status quo (O’Gorman, 1995: 213).

O’Gorman (1995: 211) further explains that “community development could be seen apart from ideology – that body of ideas reflecting the social needs and aspirations of the marginalized poor, as opposed to the body of ideas used by the dominant class to justify their position in society." O’Gorman insists that the rights and duties of individual citizens should be “an instrument for social transformation” (O’Gorman, 1995: 214).
O’Gorman argues that the transformation “reaches out for what might come to be, without knowing the way or the end of the road” (O’Gorman, 1995: 215). This account explains the complexity of development in rural communities (see Epstein and Penny, 1972: 3). Epstein argues that “development is not a linear but a multi-dimensional process” (Epstein and Penny, 1972: 247). Such complexities challenged the success of the College in the implementation of the schemes in Sibalew, Feliciano and Linayasan.

However, the extent of such complexities encountered in the establishment of projects was not elaborated on in the successive reports regarding Sibalew that were reviewed in the course of this study. There were social and cultural issues that required qualitative investigation in order to understand how the process of development was affected by local custom and cultural factors. The literature suggests this deficiency was not addressed because local traditional cultural practices were often perceived as a constraint to development by planners, policy makers and the developers initiating projects (Gabriel, 1991: 29 and Gardner and Lewis, 1996: 15).

Access to loans or other economic incentives was important to the social changes, which occurred, in local barangays. Interviews with locals of Sibalew described the grants and loans they had received from the College. Such accounts were further confirmed by Ingalla who explained that the success of the College in changing their barangay from being ‘depressed’ to ‘progressive’ was due to long-term support, funding and assistance by the College to the local people of Sibalew.

On the other hand, despite the economic development of Sibalew, further investigation of the accounts of participants revealed contradictory assessments of the effectiveness of the programme and its social impact. Some participants were particularly concerned with the preservation of their cultural practices and adherence to the traditional Filipinos society’s norms and mores, in spite of some increase of local income. In order to understand such issues, the subject of these discussions will turn to “urbanisation,” the final stage of transformation, which meant the “movement from the farm and village towards urban centres” (Smelser, 1971: 353).
11.4 Changes in Labour Process in Sibalew

This section examines the changes in local sociocultural behaviour in Sibalew. The controversy regarding economic improvement and the sociocultural change brought by technological development is examined. An examination of the consequent effect of the economic development on the sociocultural behaviour of locals in the barangay, with particular attention on the preservation of rural Filipino culture, is presented.

Historically, the changes in farming practices from the period the College set up the laboratory demonstration farms in Sibalew in 1983, could be identified by drawing parallels from Smelser's (1971: 353) four stages of transformation that accompany economic development. This initial year was consistent with Smelser's first stage of transformation, which is the "modernisation of traditional technology." At this stage local traditional farming practices were gradually being replaced by scientifically based farming methods. These included improved varieties of crops and seedling stocks, turning the family-based subsistence farming into "commercial agriculture," the second stage of transformation. At this stage, farmers learned to use the new technology: the appropriate application of fertilisers and chemicals in specific instances. Analysis of interviews indicated that this stage had no clear boundaries: it overlapped with the previous stage of transformation. The findings revealed that few farmers were trying to concentrate their farming activities into rice farming, orchard plantation and livestock production. The farmers maintained that their intention was an emphasis on diversification of their economic activities rather than to focus on "specialised crop production" as Smelser (1971: 353) had described. At this same stage, Smelser maintains specialisation of crop production is associated with the development of wage labour.

However, in the case of Sibalew, wage labour has long existed and did not actually occur at the second stage of transformation as indicated by Smelser (1971: 353) when the College introduced improved varieties of crops and seedlings. In fact, reports indicated that the College had tried to restore bayanihan, the traditional reciprocal labour system. The aim of the College was to strengthen the traditional cultural practices, in particular, the harmonious social relationships amongst locals in the barangay. This was through the integration of College programmes with local activities at Sibalew (Aguilar, 1989a, 1989b and 1990).
However, it was noted from interviews that the farmers were not fully aware of the reasoning or significance of the College’s attempt to restore bayanihan. Some farmers acknowledged the importance of bayanihan, and considered it their moral obligation to labour on the projects as a form of compensation for the assistance provided by the College. Such labour arrangements, the farmers claimed, improved their social network and solidarity and unity developed amongst them. After five years, the funding support of the AEOP on the laboratory demonstration farms in Sibalew was terminated. The College also started to withdraw their technical assistance to Sibalew, but the contact between locals and the extension staff of the College remained. An example of the continuing contact between College and locals was the arrival of field trips to showcase Sibalew as the model farm after the funding was terminated. The farmers suggested that bayanihan was no longer actively practiced. Most farmers preferred to work on their own orchard plantations.

Interviewed barangay officials explained that the bayanihan labour arrangement was now only practised when there were special occasions such as during fiestas and when there were higher officials visiting Sibalew. The barangay captain invoked bayanihan to attain a state of cleanliness in the barangay, with particular attention to the beautification of roadsides and the community center. The barangay officials further explained that bayanihan was also practised when someone called for immediate help or the community facilities needed urgent repairs, especially if it involved the water system or maintenance of roads affected by landslides caused by rain.

However, in rice fields and orchard plantations, the Sibalew farmers explained that bayanihan was no longer applicable to many of them once their orchard plantations flourished and generated income. Farm workers were in demand because some farmers could not cope with the increased maintenance. For example, there was a labour shortage during the planting and harvesting of rice, and in orchards as well during the harvest. Such accounts illustrated the gradual transformation of farming activities into a more complex economy because of changed farming methods. Analysis of interviews showed that at this stage of development, farming in Sibalew changed from “free-labour” to a “market-oriented” economy. Farmers now evaluated labour on the farms in money terms, and such labour became so expensive that many were forced to adopt semi-mechanised farming methods. Such changes could be referred to the third stage of transformation, the
“industrialisation” stage as described by Smelser (1971: 353), which meant the replacement of animal and human power, by the use of machine power.

Historically in the Philippines, farm mechanisation started in the early 1960s, largely in the sugar industry (Chua, 1990: 365-62). In rice production, Chua (1990: 357) explained that mechanised operations started in 1965 with the introduction of high-yielding varieties. However, Chua noted that power tillers, the hand tractors with 6-15 horsepower engines, were initially introduced in 1960. The machine was used mainly for land preparation of the rice fields. Chua noted that the sales of power tillers increased rapidly between 1966 - 1986, and in the early 1970s the development of the tiller manufacturing industry began in the Philippines (Chua, 1990: 357). Since then, power tillers have continued to be popular with farmers, particularly the more affluent, as the machines provide an opportunity to increase income.

In Sibalew, interviewed farmers remembered that the use of machines in rice production had begun in the early 1980s when the College brought one small hand-tractor and thresher to the barangay. These implements were part of the equipment package the College had received from the Japanese International Cooperation Agency (Aguilar, 1990: 48). The proper use and maintenance of the hand-tractor, and the use of improved varieties of rice, commercial fertilisers and chemicals were explained to Sibalew farmers.

It was noted from interviews that Sibalew farmers were aware of mechanised rice production in other barangays. Even in the early 1970s, the farmers said that they were aware of the significant impact of hand-tractors in rice production, in particular, the economic consequences when tractor power replaced local labour power (Chua, 1990: 375). The farmers noticed the increased efficiency that technology brought but the social consequences of such changes were not recognised by the farmers in the interviews. Farmers only recognised the economic advantage of farm mechanization: it was not apparent to them that such machinery would also bring other changes to their lives. This required a change of focus by farmers that moved from the economic to the social in order to understand more fully the implications of the new technology. Farmers were impressed first, by the physical work that the introduced technology could perform in the course of a day, and second by the economic advantage that accompanied such
technology, but they failed to take account of the social impact that was a consequence of such change.

In 1970s, Sibalew farmers explained they were also keen to use hand-tractors. However, the farmers said that because their income was very low, they could not afford to buy such machines. Sibalew farmers acknowledged that there were banks where they could apply for a loan but they were worried about the high interest rates and repayment obligations where their 'land titles' could be forfeited to the bank. Another problem was the cost of tractor maintenance which Sibalew farmers considered expensive.

With regard to orchard plantations, on the other hand, Sibalew farmers explained that mechanised grass cutters and power sprayers were made available in the mid-1990s. This was the year in which the rambutan plantations began to produce sufficiently to make harvesting worthwhile. With the increase in production was a corresponding increase in income. One farmer interviewed claimed that he was able to obtain PhP120,000.00 from his orchard, higher than the salary of an elementary school teacher, while other farmers claimed increases of PhP40-60,000.00 which was a still significant increase.

Cesar Ingalla mentioned that because of such an enormous increase in their incomes, many farmers were able to acquire some equipment to facilitate production. Data from the 1997 records of the Sibalew barangay officials showed that local farmers had the following implements: three hand-tractors, four threshers, ten grass cutters, one power sprayer and about thirty knapsack sprayers. Some farmers who owned hand-tractors or grass cutters mentioned that their equipment was not intended solely for their own use. The equipment was also to provide a service to other farmers to earn extra income. While earning income, the farmers said that they also employed people, particularly relatives, to operate the machine. Furthermore, Ingalla mentioned that as well as generating income from farming implements, there were farmers who recently acquired motorcycles that they offered for hire: the motorcycles were used by farmers to transport locals and products to the market. Other farmers used their increased income from the orchards to build modern concrete houses to live in.

While the new machinery offered considerable advantages to farmers, there were still some tasks that required manual labour, especially in the orchards. For example, manual
labour was necessary for pruning, applying fertilizer and the harvesting of fruit. Another specific limitation included the topography and the small size of farms where investment in machinery was not cost-effective owing to the economies of scale. Farmers with larger areas of rice land, for example, could invest in such machinery, but the physical features of Sibalew and the small size of the farms were impediments. As mentioned by Ingalla, there were still many farmers who continued to use buffaloes to cultivate the land. This occurred more frequently in orchard plantations and rice fields located on hillsides where the use of hand-tractors was not possible because of irregular terrain. Interviews revealed that different local groups in Sibalew considered farm mechanisation had led to an expansion of farming in areas on hillsides not previously farmed. It was observed that kaingin (slash-and-burn) farming still persisted in the barangay because, according to Ingalla, space in lowland areas for the expansion of orchards was limited.

Ingalla also mentioned that an increased population, due to better hygiene, healthcare and such like, as well as the return of some families from Manila, meant the demand for land in Sibalew had increased. This limited the expansion of orchards in many areas. Further, another reason, Ingalla explained was that other farmers engaged in kaingin because it had been a traditional way for them to plant rice for their subsistence. For this reason, he argued that kaingin would be difficult to eliminate in Sibalew. Such an account illustrates the change brought about by the local economic development and the relationship of farm mechanisation to such change. The land area in Sibalew for cultivation was, because of the use of machinery, a limiting factor for further agricultural development. This analysis is consistent with the findings of Quintana (1989), Agustin (1990) and the ASCA (1997) report.
Plate 12. Kaingin or Slash-and-Burn Farming in Sibalew. *Upper:* shows the early stage of kaingin. *Below:* a year later after the rice and cash crops had been harvested (Photo: R. L. Saladar, 1998).
11.5 Consequences of Technology-Transfer for Economic Activities

Evaluation of transformation in Sibalew within the context of technical, economic and social development, however, reveals debatable and contradictory factors between micro and macro levels of Filipino society. At the micro or local level, the finding from interviews and discussions shows that technologically, economically and socially Sibalew has developed progressively compared with neighbouring barangays. Farmers from neighbouring barangays confirmed such findings. They explained that Sibalew was the most fortunate barangay amongst those that received assistance from the College. The farmers said that the flourishing livelihoods in Sibalew, particularly the orchard plantations of rambutan, citrus and calamansi fruits portrayed the progressive economic development of this barangay.

Interviewed farmers of Sibalew mentioned that because of the progressive expansion of the orchard plantations, farmers from other barangays are also encouraged to adopt a similar type of project. However, the farmers of Sibalew argued that they had developed their own local techniques that were better than those of other farmers who had recently engaged in orchard plantations. For this reason, the farmers of Sibalew had a more advanced technology and better management of orchards than farmers in other barangays. Obviously, this was because of the transfer of resources from the College to farmers of Sibalew. The resources included improved varieties of crops, seedlings and animal stocks distributed through grant and loan assistance. Such resources were made readily available to the farmers of Sibalew. For this obvious reason ideology and political patronage were established: the farmers of Sibalew and staff of the College developed Sibalew into a model of technology-transfer. As a result, farmers from other barangays who were interested in orchard plantations valued contact with Sibalew as a source of information and high quality seedling stocks.

In Sibalew, harvested fruits and seedlings of rambutan and calamansi were sold at reasonable prices. Information on the establishment and cultural management practices for orchard plantations was provided free to other farmers and people who visited Sibalew. This strategy of marketing the produce and passing on the technology without cost encouraged farmers from different places to visit Sibalew to obtain new information on orchard establishment and management, and to buy seedlings. During the fieldwork
period, it was noted that five different groups organised field trips to Sibalew. Such
groups were composed of farmers, teachers, barangay officials and municipal employees
from the provinces of Iloilo, Capiz and Antique, the neighbouring provinces of Aklan.

Obviously, the groups provided an opportunity for farmers of Sibalew to sell fruit and
planting materials such as grafted seedlings of rambutan, marcot citrus and calamansi
plants. This suggests one way farmers of Sibalew sold their produce, aside from the local
traders who bought the harvest directly from individual farmers and marketed it
wholesale or retail. Analysis of interviews with farmers and some participants of groups
on their field trips revealed that the marketing system of both harvested produce and
planting material at Sibalew introduced contradictory issues.

A conflict arose between the earning of income and sharing of technology with other
farmers. There is an inherent paradox in the arrangement. While the farmers of Sibalew
were gaining income from other farmers, the Sibalew farmers acknowledged that the
diffusion of technology regarding the replication of orchard plantations in other
barangays would inevitably create marketing problems for them when an over-supply of
rambutan and calamansi occurred.

The farmers of Sibalew acknowledged the predicted produce glut. They expected it to
occur in the future and appeared unconcerned when we discussed this during the
interviews. The farmers considered the marketing problem a normal part of their
economic activities. Cesar Ingalla, the incumbent barangay captain of Sibalew, gave two
reasons for this attitude by the farmers while discussing their marketing problem. The
first reason was utang na loob, the responsibility and commitment of locals and farmers
to support the extension programmes of the College. It was the College that had provided
Sibalew farmers which technical and financial support to build a model barangay. Ingalla
mentioned that whatever the College had shared with Sibalew farmers they were also
willing to share with farmers of other barangays. In particular, the College was eager that
the farmers of Sibalew would disseminate information and planting materials to other
barangays. This included techniques and expertise in the management of orchard
plantations and seedlings. This account illustrated that the farmers of Sibalew shared
their knowledge concerning technology and management of orchard plantations with all
those who asked for their help. In such a manner, the Sibalew farmers adhered to the
principles of *utang na loob* and repaid the assistance of the College. The concept of *utang na loob* helps explain how such a state of affairs existed in Sibalew.

The second reason farmers were evasive and reluctant to speak on the issue of marketing was the informal produce marketing system that persisted in rural barangays. Ingalla explained that the local farmers were reluctant to trust the traders who, they felt, always took advantage of them by buying produce at low prices. Though the Sibalew farmers considered the economic advantage of traders to be normal in business practice, they were keen to mobilise family resources and diversify in order to escape the effects of such strategies. Ingalla acknowledged that although there was some diversification since the advent of the College, with integrated farming systems producing rice, cash crops, fruit and the raising of livestock, the exploitation of local farmers by traders had continued.

The findings of Shields *et al.* (1996: 155-179) are consistent with these suggestions by Ingalla about the informal marketing system in Sibalew. Shields *et al.* outlined four major reasons why diversification of livelihoods was important to people in the coastal villages of Napo and Tubod, located on the Southern coast of Leyte in the Philippines:

1. The seasonality of agriculture and fishing;
2. The risk of cyclical weather and pest-induced declines in productivity;
3. The high risk of failure in a volatile economy; and
4. The risk associated with a natural resource base in decline. [They explain] while traditional livelihood strategies were diversified because of the first two problems, the higher risk caused by the incorporation of the local economy into the national and international economies has made diversification an even more critical community-based risk reduction strategy (Shields *et al.*, 1996: 158).

Shields *et al.* insist that “people in Napo and Tubod have long been unable to support themselves solely on the fruits of their labour from the land and sea, yet they have few other economic alternatives” (Shields *et al.*, 1996: 155-159). The economic problems of the villagers in Napo and Tubod had been increasing because of issues of access and control in which the local and regional middlemen dominated and monopolised the local economy. The monopoly of the local economy by traders who formed syndicates in order to lower prices was described by Shields *et al.* (1996) to illustrate the significance of diversification of livelihoods to reduce the economic risks attached to production.
However, the risk reduction strategy by means of ‘diversification of livelihood’ was not directly addressing marketing problems of the ‘poor’ farmers in rural barangays. This became apparent in this case study in Aklan at Sibalew, Feliciano and Linayasan. Rather, such a strategy enhances the economic and social advantage of those farmers with capital who diversify. Consequently, the diversification by farmers allows the mercenary traders to benefit from their efforts. Exploitation by the traders affects affluent and poor farmers equally. However, the more affluent farmers are not as adversely affected as the poor farmers.

Observations showed that the monopoly by traders of the local market economy was entrenched in Filipino society. The farmers of Sibalew related various marketing strategies used by traders to influence the prices at the farm gate, such as by providing cash in advance or supplying fertilisers and chemicals to their orchards. The farmers explained that customarily when they were in economic crisis, the traders were the immediate source of cash or loans. Usually, the loan was free of interest, but the farmers must then sell their produce to the trader who furnished the loan. Such arrangements illustrated how social exchange mechanisms developed between the trader and the farmer. Such networks and trust, for the mutual benefit of both parties, were developed and accepted as cultural norms by Filipinos.

Ingalla declared that farmers who did not honour their obligations, as agreed with the trader, could be accused of walang utang na loob, which meant the individual so described had no sense of responsibility. Such an accusation affected the reputation of the farmers through the loss of credibility of their families in the barangay. Ingalla said that as a result, farmers generally did not have any effective power against traders who dictated the lower prices, and in so doing, reaped economic reward from the vulnerable farmers in rural barangays.

An example intimated by Ingalla occurred when one of his friends, a businessman, visited Sibalew with another businessman who had considerable influence in Aklan. The incident happened during this field study. Ingalla related that his friends spent almost half a day in Sibalew visiting the rambutan and citrus orchards of individual farmers. Ingalla said that as barangay captain, he was obliged to entertain visitors to the barangay, especially VIP’s. He explained that his business friend had a contracting business and
had good connections with other businessmen. While they were touring around the orchard projects, Ingalla explained the history of the orchard projects and how they were developed in Sibalew. Because of the abundance of flourishing plants, Ingalla said that his business friend and the other influential friend were very impressed by the technology and management practices of the orchards. So much was the influential friend impressed, that he was keen to adopt the technology on his own farm.

Ingalla said that when his business friend noted that the influential friend was interested in the project, he said the price of grafted rambutan was PhP75.00 per plant. However, Ingalla knew that his business friend could probably buy it for PhP50.00, making PhP25.00 on each plant in the transaction. Ingalla was embarrassed because the friend had no right to mention a price for the plants. The influential friend ordered 20 grafted rambutan plants and paid in cash, which made Ingalla feel guilty to see a friend treated in such a manner. Ingalla felt that the advantage obtained by his business friend over the influential friend was wrong, and that the sale had actually cost him money also because he had an obligation to give a commission to the friend as well. This example indicated that some mercenary businessmen were prepared to exploit local customs and relationships to their personal advantage. Such exploitation was detrimental to the economic activities of Sibalew locals. The adherence to cultural practice by Sibalew locals, indicated by the example, meant that the locals were not aware of the implications of such devious and deceitful perversions of the customs. Interviews and discussions with various groups of locals in Sibalew illustrate the social and cultural change that accompanied economic development in Sibalew. The findings indicate areas of controversy and argument. The results of these investigations will determine how the technology introduced by the College brought improvement in technical, economic and social conditions in Sibalew compared with neighbouring barangays.

The findings from interviews and discussion exercises with various local groups of men, women, farmers, local traders, youths and barangay officials suggested that the major changes in technical, economic and social development of Sibalew indicates that analysis of the transformation could be drawn within micro and macro contexts. Such methodology could provide new insights into the significance of transformation, particularly at micro level such as in Sibalew. Sibalew, then, is not just a ‘model
barangay' for technology-transfer in which the antagonistic effects of technological changes on local social practices and cultural behaviour are ignored.

11.6 The Economic Improvement and its Sociocultural Impact on Locals in Sibalew

This section examines economic improvement and sociocultural resistance of the elders to new values and behaviours in Sibalew. The examination was performed through an analysis of interviews and group discussions with locals. The analysis contrasted the local farming and other economic activities that were common in Sibalew before 1983 with the changed rural lifestyles after the programmes were run in this barangay.

In the previous section, it was mentioned that there was controversy surrounding the issues of an increased income and the preservation of local cultural practices in Sibalew. In the group discussion, the participants intimated that before the College set up the laboratory demonstration farms their farming activities historically were based on family subsistence. Buffaloes were the common source of power to cultivate the land. The cropping patterns were based on the local weather conditions. Rice usually produced two crops per year and cash crops, vegetables, fruit and coconut were produced during the appropriate season. The farming method was very simple: the growing of rice and other crops, as well as the raising of animals, was based on the experience of local farmers.

Such a simple traditional farming strategy required few procedures and no fertilizer or chemicals. Family members supplied labour for farm work. Seeds and seedlings could be obtained though barter of produce with other local farmers. Sharing of farm implements such as harrows, ploughs and sprayers, as well as buffaloes, was common in the barangay. The main purpose of the farms was to produce necessities for the families: not to sell the produce in the market. Farmers had said that the main reason they were reluctant to sell their produce in the market was because of the poor condition of the access road: horses were necessary to transport their produce. Some farmers actually carried their produce from Sibalew, two kilometres to the main road from where they travelled by bus. Farmers acknowledged that due to difficulties in marketing, they produced poor incomes. However, the farmers argued that although they produced little
income, the cropping system was simple and they did not need big amounts of capital, which was necessary under the introduced farming methods.

In 1983 the College introduced new methods of farming to Sibalew farmers through the establishment of laboratory demonstration farms on the lots of selected farmers. The established laboratory demonstration projects were then to become the sources of information for other farmers to learn the new techniques of agriculture, in rice, crop and livestock production. The proper management and production techniques of orchard plantations were also introduced. Interviewed farmers explained that after a period of time the established demonstration farms, through the College, also secured funds for the construction of an infrastructure for development projects. Horticultural nurseries, water systems, access roads and electric power lines were constructed and became the source of social, economic and technical opportunity for Sibalew people.

Consequently, the farmers explained that while their economic conditions developed progressively, there were also changes in the social behaviour of the locals. Analysis from interviews suggested that the change of local social behaviour brought out contradictory views between the old and the young people. In particular, there was conflict over how each group perceived the impact of the economic development of Sibalew barangay on their traditional cultural practices. Older people admitted some 'resistance' to urban living in their barangay. The young people displayed more 'acceptance' of the new form of social environment, the modern Filipino society. An example provided by the girls was that in the city they had freedom to wear whatever they desired, but on returning home they were required/expected to wear traditional garments. Such opposing views, 'resistance and acceptance,' show the effects of economic development on the cultural practices of locals in Sibalew.

During the interviews most of the older people mentioned that they acknowledged the significance of economic development in their barangay. However, the older people argued that they were also concerned about preserving some of their cultural practices, particularly the customary authority and respect accorded the elders of the barangay. There were concerns regarding the gradual change of young people's behaviour in which the principle of paggalang, respect for elders by young people, was perceived to be deteriorating. There were older people who explained that the loss of such cultural values
also affected their authoritative power as parents to impose discipline within the family structure based on seniority. Traditionally, such roles controlled the moral, social and spiritual obligations of individuals and households to maintain closeness. Senior members sought to unite their families in Sibalew.

On the one hand, young people acknowledged the significance of the elders’ authoritative power, particularly that of parents, to develop the moral, social and spiritual values of their children. However, young adults, aged between twenty and thirty, argued that the authoritative power imposed by the parents had changed compared with that administered just fifteen years ago, before College assistance was initiated in Sibalew. The young adults explained that because of the progressive development of Sibalew their traditional values, particularly the bahala na attitude, was driven by economic benefits gained by their parents from the orchard plantations introduced by the College. They argued that because of the economic potential and benefits from orchards, they were expected by their parents to work in them.

The young people further explained that although the progressive development of Sibalew changed the bahala na attitude into a positive procedure, the increased income from farming had weakened parents’ authoritative power over their children; it was displaced by a new form of child behaviour from the outside world. An example of this, the young people explained, concerned the economic conditions before and after the College had set up the laboratory demonstration farms in their barangay. Before the advent of the College programme, money was difficult to find and farming income was poor. Because of the scarcity of money, children could not insist that their parents allow them to continue their study toward a professional degree. Instead, the parents decided the profession or occupation of their children.

However, after the demonstration farms were established the young people noticed the gradual increase of farming income. The increased income brought economic improvements to their families; it allowed younger bothers and sisters more freedom to choose their own course. Youngsters chose the university they wanted to study at. The young explained that the authoritative powers of their parents to dictate what profession they wanted for their children were no longer effective. However, despite such changes, the young people still considered and recognised the authoritative power of their parents
when it came to other cultural aspects such as moral values, mutual obligations and the establishment of good social relationships within and outside the barangay.

Accounts by old and young revealed that the parents’ loss of authoritative power to control their children to choose their profession occurred gradually as the economic status of families improved. Such findings suggest that the authoritative power of parents was subverted by new ideology brought about through the changed economic status of the family. It was noted that the displacement of power of parents was subverted by the higher position attained in the cultural context of Filipino society. Similarly, the observations also suggested that as incomes improved, the family’s economic and social status also improved in the barangay. In such a social phenomenon, Garcia (1994) suggests:

> [If the family] moves from being traditional into modern, from conservative to democratic, both parents and children have to accept new roles. Parents have to abandon their authoritarian mode of child-rearing practices and become more approachable, reasonably permissive and tolerant. Children, on the other hand, have to be more independent and self-reliant, getting rid of their usual habits of dependency (Garcia, 1994: 227).

It could be argued from a Filipino cultural point of view that the new roles prescribed due to such change could not be accepted easily by parents and, to a lesser extent, the children. However, in a rural barangay such as Sibalew, the findings from interviews with locals revealed that there was resistance from parents to ‘abandon’ their authoritative power. In general, the parents of Sibalew emphasised that their main reason for preserving their authoritative power was because they were concerned about the gradual loss of respect amongst young people. They feared for the loss of local traditional practices especially the principles of the kinship system in Filipino family life. The elders of Sibalew argued that through kinship the locals would be united, and the social problems that existed in the urban areas, such as vice and drug use, could be detected and controlled within the confines of the barangay.

An example was the account from a group discussion with Sibalew barangay officials. One barangay official was concerned with rampant drug taking practiced in urban areas, fearing that it might spread to the barangay in the near future. However, the other barangay officials argued that with the strong kinship and social ties amongst the locals
in Sibalew, the influence and use of drugs from urban areas could not easily penetrate their barangay. The barangay officials were confident that everybody knew each other and that deviant individual behaviour could be detected easily. Such an account illustrates that kinship and social ties could be instrumental in minimizing youth social problems in Sibalew. Locals of Sibalew considered the kinship system as one of the symbols of the rural cultural heritage that they needed to preserve in Filipino society.

It was noted from the interviews that as one family moved to a higher social status within the barangay, locals expected the family members, husband, wife or mature children, to hold higher occupational positions in local organisations. For instance, it was noted in Sibalew that most officials had farmer co-operative stores and that generally they were involved in civic and religious associations. Such involvement was regarded as the exclusive domain of the more affluent families. This observation implied that as the economic status of families changed, the social functions of the members also changed. Family members tended to get more involved in various social activities where their social identity was redefined culturally.

On the other hand, some Sibalew farmers claimed that the measure of success of their families was not only based on the higher income from farming. Such farmers argued that the education and profession of their children were also important in being a successful family in the barangay. Farmers explained that the economic improvement of their family provided access for their children to education. Once the older children gained an education, the farmers explained, they could find jobs and would be able to help their younger brothers and sisters. The Filipino parents’ customary obligation to provide proper education for their children was linked to the overall welfare of their families. For example, when their children obtained a degree and were employed professionally, such as engineers, or accountants, the position of the progeny became symbols of the economic standing of the family in the barangay. This was particularly the case for family members employed overseas.

Such an account illustrated the changed perception and aspirations of Sibalew farmers as their income increased. The accounts also showed how the interests of farmers shifted, from learning the technology and entrepreneurial skills introduced by the College, to improving their income from farming. After the economic condition of a farmer
improved, his/her attention moved to providing a better education for their children. As a result, the education and the subsequent jobs of their children became the main indicators to determine the success of the farmer’s family. Under Filipino culture, children would be expected to provide financial assistance to their parents, especially when the parents grew too old to participate fully in farm work. This analysis suggested contradictory issues between the aspirations of farmers and the assumptions of the College. The College officials assumed that once farmers obtained improved economic circumstances, a better life for all people would occur in barangays such as Sibalew. This was termed “positive transformation” (AAC-AEOP Implementation Plan, 1980: 2). However, it was noted that the Sibalew farmers’ aspirations changed. Farmers turned their attention to the education of their children. The majority of interviewees explained that almost forty percent of their income was appropriated for their children’s university degrees. Sibalew people valued the education of their children, and related that directly to the welfare of their families.

Consequently, locals perceived education as important for the social identity of the family, especially when the children worked abroad. This analysis implies that in the long-term the economic development of Sibalew might tend to widen social and economic differences between individual families in the barangay in the future if such issues are not addressed quickly and effectively. To elaborate further, observations from several households showed that Sibalew people valued the education of their children more than reinvesting money in the farms. For example, the laminated diplomas, awards and certificates received by the children in the course of their education were proudly displayed in entrance halls of family homes, indicating to visitors the social identity and position of the family within the community.

Interviewed farmers explained there were two main reasons for investing in the education of children. First, the farms were not big enough to be worthwhile investing large amounts of capital in, particularly when most of the farmers were engaged in orchard plantations. The long-term projects such as orchards, once established, required little further investment. The expenses of obtaining labour were minimal as immediate family members provided this. Furthermore, farmers mentioned that expenses incurred on the farms could be readjusted depending on the prevailing situation. However, the farmers argued that the school expenses, such as the weekly allowances for board, food
and the quarterly payment of tuition fees, were fixed and they needed to allocate money to pay those bills.

The second reason farmers preferred to invest in their children's education was related to the traditional cultural practices of Filipino families. In rural barangays, in particular, the education of children provided economic security for parents. The farmers explained that education led to good jobs. Farmers maintained that a diploma or degree was the passport to Manila or abroad. Once the children were employed, the farmers expected an economic return from them. Such expectations were also met in the form of coloured television sets and stereo systems as noted in Sibalew.

Luxury items such as foreign-branded coloured television sets and stereo systems were also displayed in the lounges of the households visited during the fieldwork. This observation suggested that while the economic condition of Sibalew was growing steadily, the locals tended to put more value on foreign consumer-orientated items they had obtained through family connections or working children abroad. Such changes in local behaviour could be explained by the principles of "consumerism" (see Marshall, 1998: 112). It means that the economic development of Sibalew also provided access for the locals to become consumers of foreign goods and leisure items. Ownership of these items illustrated a symbolic economic family identity, particularly in the rural areas such as Sibalew, which was isolated and had limited access to high-tech amusement facilities, unlike urban centers.

In the same manner, it was noted from the interviews that pagmamay-ari meaning property ownership now included mechanized farm equipment and appliances which endorsed the social position that his/her family had attained in their society in the individual family member's consciousness. Such consciousness could develop into 'individualism' as the practice of conspicuous consumption, perhaps on a limited and local scale, was designed to draw attention to their improved status. This change of attitude, manifest in changed individual behaviour toward family members may lead to the (eventual) disintegration of the family unit, or at least, seriously weaken kinship ties. Such an effect was confirmed, to some extent, by interviews with the locals of Sibalew concerned with the deterioration of their traditional cultural practices, especially the modern values displayed by young people in the barangay. The Western ideology of
individualism combined with the local practice of conspicuous consumption had already led to individuals, particularly children who had access to television, adopting Western values and culture in the minds of elders.

Consequently, the changing (Westernising) behaviour of children conflicted with Filipino rural lifestyles, particularly in Sibalew. The long-term effect of introduced cultural development on the behaviour of Sibalew children could lead to a materialistic attitude to life. This attitude is entrenched in urban areas, such as in the city of Manila. Immediately obvious in Manila moreover, is the social and economic inequality that such values bring. The economic and social disparity within the city represented a threat to individual well being in the minds of barangay elders.

However, despite over-crowding in urban areas, there were still many people eager to live in towns and cities rather than their barangay. The interviews revealed various reasons why some locals moved their families to urban areas. Interviewees suggested three major reasons why locals in Sibalew migrated to the urban areas, despite the unpleasant social and physical environment. Despite the fact that in Sibalew social and economic conditions had improved in recent years, there was the opportunity of seasonal employment for men in cane plantations in the towns of Barotac, Iloilo or Tarlac, Manila. The second reason was related to matrimonial relationship, where traditionally the wife moved to where her husband lived and worked. Third, the locals explained that because land was limited in Sibalew, the new couple’s inclination was to move to find jobs and establish a place to raise a family.

At the same time, some families had returned from living in Manila to build homes and re-establish farms in Sibalew. However, locals argued that the number of people moving from their barangay to the urban areas was greater than the number of locals who returned to Sibalew. A major concern for parents was the limited employment opportunities in Sibalew, which persuaded youngsters to 'find greener pastures'. Locals said that after children obtained a degree or diploma the majority went to their relatives in Manila to find work.

If the children could not gain employment in Manila they returned to Sibalew to help on their parent's farm. The locals calculated only one in every ten children returned. Some
locals acknowledged there were difficulties for children getting jobs without sponsors. However, the locals argued that their children were prepared to stay in the polluted and overcrowded environs of Manila to seek an economic advantage. In Sibalew economic opportunity through work was very limited. Employment difficulties for young people in Sibalew were an enduring problem which exists in rural barangays throughout the Philippines.
*Upper:* A woman cleans rice after using a mortar and pestle, a practice made redundant by the Sibalew Rice Mill. A child wears a red headband containing herb leaves to gain relief from fever. Curing fever with herbal plants is still practiced. *Lower:* close relatives attend the family thanksgiving. The woman kneeling, the celebrant, is humble before ‘Jesus’. The woman sitting on the mat is ‘Mary’. The two actors are not immediate family but the audience is close family members. The food is a traditional dish reserved for this special occasion (Photo: R. L. Saladar, 1998).
11.7 Summary

In summary, this chapter examined the sociocultural transformation in Sibalew as a result of economic development. The concepts behind the transformation in Sibalew, the consequences of technology-transfer on local sociocultural practices, the change in local sociocultural behaviour associated with economic development and the economic improvement and sociocultural resistance of locals to change were described. The College’s evaluation of these processes was considered.

The concept behind the transformation in Sibalew was based on the theory of modernisation. There were indications of this in the various programmes introduced to Sibalew. The general theory was that when the barangay become more productive and self-reliant, positive transformation in the quality of life of the rural inhabitants would follow. Critics insisted that the application of modernisation theory was problematic, particularly the ‘trickle down’ of technology and economic development in rural communities. The increased economic growth that occurred in one community would not spread proportionally to all the locals within that community. Nor was there any guarantee that it would spread to other barangays.

The literature suggested that modernisation, including technological determinism and materialism failed to effectively address the real causes of poverty and underdevelopment. The ‘top-down’ approach as an inherent part of modernisation, was positively assumed to be able to render betterment for the local rural economy, but was vastly different from the traditional economic system opposed to such an approach. The literature suggested that the meaning of development in undeveloped countries particularly in rural communities needs to be reassessed, including the existence of market economies, concern for human rights, gender equality, environmental protection, participatory management of resources, forms of decision-making and economic self-sufficiency. The ‘bottom-up’ development through local management has been emphasised in literature. The improvement in the economy was detrimental for many of the cultural practices that had prevailed before the introduction of the technology. Criticism of modernisation theory was examined in order to understand and discuss issues concerning economic development and the transformation in Sibalew.
Studies and reports of College staff reviewed contained similar findings and all highlighted the positive economic effects of the new farming technologies introduced to Sibalew. Some of the technologies, for instance, the Sloping Agricultural Land Technology, were not effective enough to convince all Sibalew farmers of the advantages it presented. There were positive features in the previous studies in Sibalew conducted by Agustin in 1990 and Quintana in 1989. Their studies produced figures that indicated increased levels of income and accounts of improvements for local people. These included an awareness of the effects of new technology, increased incentives for farmers to adopt new farming methods, the importance of the proper maintenance of projects and the benefits of the expansion of orchard plantations. Those findings confirmed and endorsed the positive transformation that occurred in Sibalew. The predicted produce glut and a lack of capital were mentioned but other sensitive issues of a cultural or political nature were non-committal but suggested further investigation was required in those areas. The studies, based on quantitative methodology and the limited duration of the research were unable to fully explain crucial aspects of the situations that prevailed.

Political expediency demanded a successful evaluation of the demonstration farms in Sibalew in order to secure further funding, maintain occupational certainty and fulfil political obligations. In this case study, ‘social capital’ was used to describe the effects of the network between various actors involved in the development of Sibalew. The social capital was developed by the individual personalities involved and through the leadership of barangay officials. The development of the social capital also brought recognition for the College. These elements, all related to social capital, were significant in the analysis of how the College staff co-operated with Sibalew locals. Social capital provided the tools to attempt to understand the sociocultural and political relationships that brought success to the College and Sibalew.

The consequences of technology-transfer on local sociocultural practices in Sibalew were discussed. The changed agricultural production in Sibalew from subsistence to market-oriented was confirmation of successful technology transfer. Subsequently the changes led locals to a new pattern of social interactions, living conditions and farming methods. The flourishing livelihoods, rapid expansion of orchard plantations and improvement of standards of living in Sibalew enhanced the reputation of their barangay. Locals in neighbouring barangays knew that it was the accumulation of programmes over fifteen
years that made Sibalew the model barangay for technology-transfer. The networks, mutual trust and ‘social capital’ bound the College, Sibalew locals and linkage agencies in successful partnerships. The uniqueness of the social and political alliances that existed between the people involved, created subjectivity and bias against other barangays. Jealousy and tension was exhibited by some of the locals. The technical information and premium quality seedlings were available in Sibalew for dissemination to farmers in other areas. Access to good quality seedlings and free technical information was often disregarded during arguments over the unequal development that existed between the barangays.

The rapid expansion of orchard plantations created gluts of produce. Marketing of the increased produce was problematic in the rural area. Sibalew farmers, aware of the marketing problem, were unconcerned because such problems had always existed in their rural economy. Jose Ingalla, the barangay captain, described the two market issues. The first was the utang na loob, the reciprocity of locals to the College. It was felt that Sibalew had a key role in disseminating the technology and planting stocks to farmers in other barangays. The second was the persistence of an informal marketing system. The local traders had taken advantage of this and had exploited economic opportunities intended for the vulnerable farmers. The diversification of agriculture in Sibalew resulted from the various technologies favoured by the College. The marketing of produce was an enduring problem and the manipulation of prices by local traders was a major issue. The power of traders to ‘access and control’ using the suki relationship was an example, according to Ingalla. The literature emphasised the antagonistic relationship that existed between buyer and seller. However, the continuity of a market for produce depended on the suki alliance. In Sibalew, the suki alliance advantaged the trader rather than local farmers.

The change in local sociocultural behaviour through economic development was examined in Sibalew. Four stages of transformation identified by Smelser were used to guide the discussion of the changes. These included the ‘modernisation’ of subsistence farming, ‘commercialisation’ of farming through economic-based activities, ‘industrialisation’ by means of diversification of livelihood and finally, ‘urbanisation’ the installation of electricity and access roads. These stages were interdependent in the economic development of Sibalew, over fifteen years of the integration of various
external resources. The ‘modernisation of agriculture’ in Sibalew began with the initial establishment of demonstration farms in 1983. This included the promotion of the Sloping Agricultural Technology and other new methods of farming. Consequently, the traditional cropping pattern that was based mainly on local weather conditions was gradually modified. Improved varieties of crops and seedling stocks that demanded an appropriate application of fertilizer and chemicals replaced traditional methods. The intention of the new farming technology was not the specialisation of crop production. It was intended to assist in the diversification of production for the ‘commercialisation of agriculture’ described by Smelser. At this stage of development in Sibalew the local farmers were encouraged to produce more for the local market and obtain the optimum profit. With the improved varieties of crops and seedling stocks, the application of fertilizer and chemicals were gradually required to raise successful crops.

The gradual increase of farming income in Sibalew began in 1987, five years after the demonstration farms were introduced. The mode of production changed leading to the ‘industrialisation’ of the local agricultural economy. The traditional pattern of farm work agreements through bayanihan, exchange-labour, was replaced by paid labour. Very few Sibalew farmers had ever paid for labour before the 1980s. The improvement of production required technology, efficiency and profit in all economic activities. Labour became so expensive some local farmers were forced to use machines such as hand-tractors and rice threshers. Locals acknowledged that time was important for increased production. Farmers limited their time spent in social interactions with family members, neighbours, and people in other barangays. Sibalew farmers were aware of the importance of farm mechanisation before the College arrived in the 1980s. Their poor income denied the local farmers access to those implements and machines. The arrival of the farm implements from the Japanese International Cooperation Agency 1987 allowed some farmers to use hand-tractors and rice threshers on their farms. The labour saved through mechanisation was acknowledged but the small farm areas and topography limited the economic viability of owning those machines.

The available literature indicated that farm mechanisation started in the Philippines in the 1960s, in the sugar industry. In rice production, the mechanised operations began in 1965 with the introduction of high-yielding varieties of rice and other crops. The literature
indicated that the benefits from farm mechanisation went to the more affluent farmers who had the capital to buy the machines that provided an opportunity to increase income.

With the economic boom in 1987, many local farmers began to use hand-tractors, rice thresher and other mechanically powered implements to speed up their work in rice production and orchard plantations. The desire to increase profits through expansion meant extending the orchards into the hillside areas. Slash-and-burn techniques were used to clear and plant the areas with fruit trees. Sibalew had only a small lowland area that was suitable for rice production. To support the growing population, extra land was required and the slash and burn practice proved difficult to eliminate. The increasing demand for land and the higher incidence of slash and burn land clearance was unacknowledged or received scant attention in the review of previous studies on Sibalew. There were social, cultural and political issues that combined to create conflicting assessments between economic improvement and the preservation of the natural environment in Sibalew.

Finally, the ‘urbanisation’ of Sibalew arrived with the installation of electricity and the construction of access roads and water works. The existence of those utilities in Sibalew created new economic activities for the locals. The improved income of the locals allowed many children to obtain a better education so they could eventually find employment outside the barangay. The advent of electricity and access roads brought a more ‘Western urban lifestyle’. However, the new forms of social behaviour created controversy between the old people who wanted to preserve the traditional norms, mores and beliefs, and the young people who embraced the urbanised values of modern Filipino society. The assimilation of urbanised behaviour in Sibalew introduced social and technological change.

The economic improvement and sociocultural resistance of the elders to new values and behaviours in Sibalew was the last area examined. The examination was carried out through an analysis of interviews and group discussions with locals. It was possible to contrast the local farming and other economic activities that were common in Sibalew before 1983 with the change in sociocultural behaviours and attitudes discernible after the demonstration farms and utilities were introduced. The increasing standard of living in Sibalew was at the expense of the preservation of the traditional rural lifestyle in this
barangay. There were arguments over economic progress that threatened the local cultural values, mores and beliefs that many locals felt needed to be preserved. The literature suggested that the progress of a particular community depended on the participation of the locals to initiate change for themselves. Although in Sibalew the locals were involved in the change, there was also some cultural resistance to the changes.

The authoritative roles of parents and customary power of elders were used as examples. The strong kinship and family ties that united the Sibalew locals were maintained through this traditional custom. But these values were more frequently being seen as old-fashioned and were fading from daily life. The preservation of Filipino rural life styles in Sibalew, espoused by some locals, contradicted the urgent aspirations of many locals who wanted an increased income and a better education for their children. The children would provide some economic security for the parents, as they grew older. There were conflicting demands for maintaining the traditional authoritative power of parents, and accepting the young people's new social behaviour. However, the issues of education and employment were also important in the context of the social identity of families. In conclusion, the economic improvement and level of sociocultural resistance in Sibalew depended on the particular social identity of individual families in the barangay. The improved standard of living and the subsequent increased social status of some families created social disharmony and increased the differences that existed between families. The imported values of individualism and materialism are probably irreversible in Sibalew.
Chapter Twelve
Summary and Conclusion of Sibalew Case Study

12.1 Introduction

This case study has examined the introduction of modern agricultural technologies and the sociocultural transformation that resulted in Sibalew. The extension method used by the College to establish demonstration farms to promote modern farming methods was evaluated. The effects of changed farming methods and the local economy at present on the social and economic structures crucial to the traditional cultural practices of locals and on the natural environment of Sibalew were investigated. The case study covers fifteen years, from 1983 when the College began to promote modern farming methods in Sibalew, until 1998, the period when the fieldwork of this case study was done. The findings of this case study have implications for the diffusion model and the 'putting people first' approach that have been used by the College in their extension programmes.

12.2 Summary

Sibalew was one of three barangays where case studies were conducted to ascertain the effectiveness of introduced agricultural technologies and the extension methods of the College. The case study shows that the degree of effectiveness of the extension methods, the new technologies introduced and the subsequent changes to the lives of the locals varied in these three barangays. The three barangays differ in their potential for development. The standard of living and economic conditions and the leadership style of local officials were different. The soil types, geographic idiosyncrasies and climatic conditions were not similar. The existing livelihoods, access to markets, kinds of and duration of extension programmes and the amount of funding available from external sources were also different.

Sibalew was the poorest and most backward barangay compared with Feliciano and Linayasan before the College introduced their extension programmes. Of those three case study barangays, Sibalew received the most assistance from external agencies. The College has used Sibalew as an experimental barangay for fifteen years, from 1983-1998. Feliciano was assisted for almost ten years from 1989-1997 and recently Linayasan had
nearly two years, from 1994-1996. Sibalew local officials had developed a unique leadership style over the fifteen years the College had assisted this barangay. The network and trust initiated, especially the charisma of Jose Ingalla which united locals and his leadership style, that his successor has followed, built and maintained social capital in Sibalew. This social capital in Sibalew was an asset that allowed the College to integrate various programmes and resources from external agencies in this barangay.

The integration of various programmes and resources from external agencies in Sibalew was complicated. In particular three agricultural education programmes, the AEOP, FYDP and the DAT-BAT programmes were implemented in this barangay. Sibalew locals, extension staff and college faculty involved had encountered difficulties in implementation. They had different opinions of what development means before the establishment of the demonstration farms and again, after economic development had taken place in Sibalew. The outcome of individual programmes was interrelated to other programmes. As well, the results of one programme affected the implementation of other programmes. The approach of integrating external programmes in Sibalew provided some financial advantage to the College over other colleges in the region. Sibalew had directly benefited from the integration of programmes more than other barangays. The external resources available did not reach other barangays to the same degree as in Sibalew.

The integration of various programmes in Sibalew was an example of a complex development process. This case study revealed that there were different perspectives about the changes in social and economic structures described in previous studies and reports on Sibalew. Many problems were not discussed in previous studies and reports reviewed. Especially, the adverse effects of economic development on the traditional cultural practices of locals and natural environment were not discussed explicitly. Added to this issue there was annoyance by the locals from other barangays excluded from extension programmes over the amount of assistance received by Sibalew locals. Assistance was not equally distributed to other barangays, resulting in questioning of the relationships of Sibalew with the College.

The integration of various programmes was crucial in the development of Sibalew and changed social and economic structures. The labour arrangement on the farms was also
changed. Traditional labour done by means of exchanging of work based on mutual agreements or the spirit of *bayanihan* through mutual help was changed to waged-labour systems. Farming methods transformed from traditional subsistence to capital-intensive methods. Various livelihood projects were introduced to provide extra income to the locals. An example of these projects included poultry, a barangay horticultural nursery, inland fish culture, apiculture, a rice mill, native pineapple and recently the student entrepreneurial projects. Through those projects the local farming methods were improved and other family-based enterprises and support utilities were constructed as a result.

An example of this was the advent of electricity, a water system and access roads. The arrival of these facilities improved the social and economic networks of Sibalew locals. As a result, awareness of Sibalew locals about modern technologies and economics in farming improved. Sibalew locals were becoming business oriented and profit minded. As well, their values and attitudes were more fragmented and diverse. Materialism and consumerism such as competition between families over having new models of western appliances became more important to the lifestyle of locals. There were arguments from Sibalew locals also that such values increased economic pressure to further improve their standard of living. The subsequent effect of the changed rural lifestyle of Sibalew locals was increased pressure to produce higher farming incomes. Land cultivation was expanded in the hillside areas causing further disturbance of the natural habitat of Sibalew.

The changes in rural lifestyles in Sibalew also affected social interactions between locals which became more complicated. Most of Sibalew locals were preoccupied with working on farms and the time spent having a chat or other social interaction with their relatives and friends became limited. The subsequent effect was that closeness amongst locals was affected and strong kinship relationships were weakened. Previous studies by college staff overlooked examining these issues, especially the effects of economic development on the social and cultural practices of Sibalew locals.

The findings from a review of previous studies and reports written by different authors suggest that the transfer of agricultural technologies in Sibalew transformed the standard of living of locals. Sibalew locals moved from being poor to being members of one of the
most progressive rural barangays in the region. All previous reports reviewed highlighted the positive economic effects of the new farming technologies introduced to Sibalew. Positively, the previous reports suggested that local awareness of the effectiveness of modern technologies was improved, there were increased incentives for farmers to adopt new farming methods, farmers' skills in the proper maintenance of projects improved, and orchard plantations in Sibalew expanded rapidly. All those findings confirmed and endorsed the positive transformation that occurred in Sibalew.

This case study reconfirmed some of those findings mentioned above, but the adverse effect of economic development on the social structure was not discussed thoroughly in previous studies and reports. An example of this was a study done by Quintana in 1989 that suggests that the AEOP had generally achieved its objectives related to the student internship-community outreach and the implementation of the student loan fund assistance in Sibalew. The AEOP expectation to transfer the new agricultural technologies to the farmer-beneficiaries was achieved satisfactorily. This included increased production, improved capital and savings, increased effectiveness of cropping, maximum land use, dissemination of technology and development of self-reliance. The local leadership was improved and the aspirations, attitudes, social discipline and security of locals were improved. In general, the findings of Quintana revealed that the Sibalew farmers were concerned for the health of their children, lived longer lives, had better housing, increased production, and accessed better education for their children, as well as having light and water in their barangay.

A more recent study conducted by Agustin in 1990 indicated that the Sibalew farmers managed the orchards and other income-generating projects introduced to them in a sustainable manner, when compared with farmers of other barangays who had similar projects promoted by the College in the 1980s. The general finding of Agustin's study was that of the six barangays where the demonstration farms of the AEOP were implemented, Sibalew was observed to be highly sustainable. However, Agustin has argued that the average income of local farmers in the six barangays was below the national annual family income in 1989. Agustin suggested that the lessons learned from the Sibalew experience should be investigated and serve as a basis for designing future outreach strategies to improve the rural development project of the College.
This case study follow up Agustin’s suggestions and looks at the complex social, cultural and political factors that offer different perspectives crucial for the College when similar extension programmes are to be introduced in other barangays. As well, institutional problems related to complicated linkages with other agencies were important. The findings of previous studies and reports that positive transformation occurred in Sibalew were often emphasised, but other issues were ignored. Creditably, a predicted produce glut and a lack of capital were mentioned in the previous studies. Some of the introduced projects and technologies were complicated for farmers to adopt. For instance the problems of the Sloping Agricultural Land Technology, that was not effective enough to persuade all Sibalew farmers to adopt it, were not discussed explicitly. Recently, a report by Claydon (1998) identified that intensive labour to maintain contour hedges and the wider space occupied by contour lines were the major issues that deterred local farmers from adopting such technology in the area. The amount of time taken to maintain demonstration farms before they could produce income was another issue that overlapped with other livelihood activities of locals outside farming.

In general, the previous studies were based on quantitative methodology. The scope of the discussion was limited to the defined variables of the study. The limited duration of the previous research was also problematic. They lacked historical analysis and were non-committal and only suggested that further investigation was required in those areas. Previous studies were unable to fully explain crucial aspects of the social, cultural and technological situations that prevailed. As well, the significant implications of the findings for the extension programmes of the College were not discussed critically.

This case study shows that the interactions of social, cultural and political practices of locals with national policies and bureaucracies prevented the College from implementing the concepts and procedures of the ‘putting people first’ approach in their extension programmes. The ‘top-down’ process dominated as opposed to the ‘bottom-up’ approach in the extension programmes; the decision-making process was centralised in the College. The cultural practices of locals and the problems with bureaucracies subverted the authentic participation of locals, especially in the decision-making process. Added to these issues there were many problems associated with the introduction and adoption of modern agricultural technologies in Sibalew. The concepts behind the demonstration farms and the integration of various programmes were similar to the diffusion model.
The assumption was that economic development brought about by the integration of external resources would 'trickle down' to all people within the barangay, as well as flow to other rural barangays in the region.

This case study reconfirmed the shortcomings of the diffusion model criticised by various authors. The findings of the case study revealed that there was no guarantee that the increased economic growth that occurred in this barangay would spread proportionally to all the locals within the barangay. Nor was there any guarantee that it would equally spread to other barangays within the region. The literature suggested that the major problem of the diffusion theory was that it ignored the traditional practices of locals and failed to effectively address the real causes of poverty and increased inequality. The procedures involved in implementing the diffusion model, the 'top-down' processes, were assumed to be the most effective way of providing assistance to improve a local rural economy. The application of the 'top-down' process, for example in the integration of various programmes in Sibalew, was other required for implementation of national policies and decision-making purposes, as well as to evaluate a particular programme in the barangay. The findings of this case study confirmed that the 'top-down' process was crucial for accessing government funding. Eventually, it was apparent in the case study that the way the College combined the 'top-down' process and the 'bottom-up' approach compromised the implementation of various programmes in Sibalew.

There were arguments from locals about their difficulties in comprehending their actual role in the demonstration farms. As well, some extension policies were not clear to them. An example of this was that many locals have argued that the policies and agendas between the College and the linkage agencies were not clear. The barangay officials emphasised their difficulties in evaluating the effectiveness of one programme because of its similarities to another. Added to these problems was the argument from locals that the actors involved had different class and status with diverse opinions affecting implementation of some of the programmes. Those actors who had strong personalities and political backgrounds dominated the decision-making processes.

The case study revealed that the changes in cultural values and practices of locals in Sibalew were the result of economic transformation and also influenced by the outside
world through media information. The processes of transformation that occurred in Sibalew had similarities to the four stages indicated in the literature for traditional societies undergoing development. The first stage was 'modernisation' of subsistence farming. In Sibalew, this was through establishment of demonstration farms. The second stage was 'commercialisation' of farming methods. This implied the adoption of modern agricultural technologies in Sibalew by providing the locals access to markets for cash. The third stage was 'industrialisation.' This referred to the diversification of agricultural production such as introduction of various livelihoods in Sibalew. Finally, the last stage was 'urbanisation.' This related to the influence of media and interaction with people in Manila, more than trade. Social and economic networks established by the locals and some traders in the towns made Sibalew more urbanised. The installation of infrastructure, especially electricity and access roads, made the rural lifestyle of Sibalew urbanised. The local livelihood enterprises were interdependent with the outside economy via commercial advertisements from media, especially the use of western products and technologies for their farming.

The cultural values and practices of locals were adversely affected by the economic changes. The case study shows that the Filipino rural lifestyle that had been customarily practised by Sibalew locals was affected initially by economic change. The local customs valued by the Sibalew elders, their cultural heritage, was undermined. The ensuing unrest regarding the economic and technological changes simmered in the background. Sibalew locals became market and profit oriented and with changes in their economic condition, the locals spent more time engaged in farming and other entrepreneurial activities.

The changes in the economic condition of locals in Sibalew were criticised by the locals from other barangays. Specifically, there were arguments from locals in the neighbouring barangays that the assistance received by Sibalew from the College was not equally extended to other barangays. Further, there were arguments that the Sibalew farmers were dependent on the external agencies that provided assistance and support from the College, despite their obvious economic improvement. Conversely, Sibalew locals claimed that such arguments were linked to jealousies which were rife amongst the locals, and there were only limited funds available and the uneven distribution of resources created cynicism. Added to this issue was the culture of politics, especially the leadership of local officials which was crucial in implementation of development
programmes. The leadership style of Jose Ingalla was incomparable to other officials in the case study barangays. Ingalla was the key person of Sibalew to access the programmes and assistance from local, national and international aid organisations through the College. If every barangay had an Ingalla the external programmes could be handled beneficially for locals. But the success of Ingalla in establishing partnership of Sibalew with the extension programmes of the College was only an example for other barangay officials and difficult to replicate.

An example was the three types of agricultural education programmes described earlier in this case study. The College used those programmes to promote agricultural technologies, income-generating projects and other livelihood activities in Sibalew. Technical, financial and material assistance was included in these programmes. The three programmes had similar objectives but varied in the external sources of funds, duration, and implementation procedures. Their methods of assisting the locals were different. For example, the AEOP strategy was drawn from the theories and procedures of the diffusion model. The FYDP method was a grassroots participatory development approach with similar concepts and procedures to the 'putting people first' approach intended to promote participation and empowerment of locals. Finally, the last programme was the DAT-BAT, which was based on a combination of the theories, concepts and procedures of the diffusion model and the 'putting people first' approach implemented in Sibalew. The procedures in the implementation of these three programmes were complicated, especially the role of linkage agencies which differed. Some linkage agencies played only a ministerial role. Others agencies delegated their experts such as foreign volunteers to assist in the developments of Sibalew. Grants and technical assistance were provided by the international aid agencies through the College assisting development of the livelihoods of Sibalew locals.

Despite the financial and technological supports, several problems associated with the introduction of livelihood projects and the utilities established in Sibalew were emphasised in this case study. An example was the discontinuation of the Inland Fish Culture Project, despite local enthusiasm for this project. This was due to existing local cultural practices, the geographical location and the climatic conditions. Another example was the Student Entrepreneurial Project. This was the most recent and unique income-generating project in Sibalew in which students enrolled in the programmes, and
their parents and other family members within the household were actively involved. The local employment of students in their newly established income-generating projects was expected after graduation.

Although the income-generating projects provided additional economic advantage for some families, arguments ensued over these projects. The parents have traditional rights to control income from the crops planted by their children. The seasonal production of projects and the limited area for cultivation were other issues raised by income-generating projects. As well, marriage, working arrangements and young people seeking greener pastures in urban areas were also critical issues for the employment of Sibalew locals.

In summary, the integration of various programmes and the interactions of the cultural practices of locals with extension procedures and other factors transformed the social and economic structures of Sibalew. The transformation of the Sibalew economy opened various opportunities for locals as well as led to different arguments about economic development in this barangay. Specifically, the technological and economic transformation in Sibalew failed to reduce economic pressures on Sibalew locals that threatened some of the traditional cultural practices, norms and their beliefs, that elders especially, felt needed to be preserved. The strong kinship family ties that united the Sibalew locals and were maintained though these traditional customs were weakened. There were contradictions between the preservation of traditional cultural values and practices in Sibalew, espoused by local elders, and the urgent aspirations of many locals who wanted increased income and a better education for their children. The improvement in infrastructural facilities strengthened the development of Sibalew, but the development of this barangay was steeped in controversies. There was an increase in farming income and more livelihood projects established, but the lack of a regular source of income in barangays was more crucial for employment of Sibalew young people. The local traders dominated the local economy to the point of negating any advantage the access road offered to Sibalew locals.
12.3 Conclusion

The Sibalew case study is an example of the integrated development approach to improving local agricultural industries for a better standard of living in rural areas of the Philippines. The process involved the integration of various programmes and assistance from local, national and foreign aid institutions. These programmes were complicated and the effectiveness of individual programmes was difficult to determine because of overlapping factors associated with their implementation. The outcomes of one programme were interrelated with the objectives of others and their procedures overlapped. The integration of various programmes in Sibalew transformed the social and economic structure of this barangay. Subsequently, the effect of transformation changed the rural lifestyle of locals from backward to a modern Filipino lifestyle.

The case study shows interactions of a human, technical and institutional factors were crucial to the implementation of national policies in the barangay. The interaction of these factors was influenced by the participation of locals, especially by providing labour during the establishment of demonstration farms as their counterpart to the financial and technical assistance provided. But the Sibalew locals were not actually involved in participating in all the stages of the implementation of various programmes. Sibalew locals participated actively only when providing their labour on the demonstration farms and other projects that involved manual work. However, in terms of work involving critical thinking, the extension staff and faculty involved often determined the activities undertaken by locals in demonstration farms. In particular, the locals had limited participation in the decision-making process.

In conclusion, the price of development in Sibalew was the loss of some traditional cultural practices and changes to the natural environment of this barangay. The advent of infrastructure facilities provided opportunities for additional livelihood activities in Sibalew. Economic pressure, because of the changes, continues to grow for the locals so they must work harder than before and they are facing more complex problems as they move to the next stage of development. Related to this, the FAO (1997) has emphasised the pro-active role of the College in closing the gap between the rich and poor and issues about inequality between Sibalew and other barangays. In particular, the FAO (1997:
suggested that agricultural education and training should be adaptable and responsive to the realities of rural societies.

In order to replicate the successful development of Sibalew in other barangays, four issues have been noted in the literature relevant to the findings of this case study. The first issue was the overriding institutional issues caused by national policies, especially the standardised programmes of central government that were often unrealistic and incompatible with the traditional cultural and political practices of locals. Providing continuous training for extension staff and faculty with sensitivity on cultural, political and institutional issues would be useful for critical evaluation to further improve the extension programmes (FAO, 1997; Michener, 1998; Thompson, 1998; Cornwall et al., 1994).

The second issue was related to the controversies between the institutional accountability of the College for the development programmes and the expectations of local people in other barangays who looked for the same assistance that was provided to Sibalew locals (see Michener, 1998; Thompson, 1998; Cornwall et al., 1994). This issue made the work of extension staff and faculty more difficult because they were dealing with biased implementation of extension programmes in other barangays. Therefore, it is crucial for the College to develop programmes that ensure an equal distribution of assistance to other barangays which is an essential aspect when reducing inequality through development.

The third issue concerned the suggestions of various authors for the reassessment and self-awareness of actors involved in development programmes (see Holland and Blackburn, 1998; Chambers, 1997; Scoones and Thompson, 1994). The values, behaviour and attitudes of locals, extension staff and faculty and people from linkage agencies involved in development are crucial for development. Related to this issue, Garcia (1994) emphasised the role that Filipino culture has played in the development of the country. Hunt et al. (1997) stressed that the Filipino cultural ideologies of personalism, particularism and rationalism were all crucial in the implementation of extension programmes. Espiritu et al. (1995) suggested eight cultural values of Filipinos that conflict between with the role of family, authority, dependency and subservience could increase inequality. Unanimously, all of these authors above have similar opinions
that *utang na loob* or reciprocity is the most important Filipino value to deal with the implementation of extension programmes (see Lewis, 1992; Kerkvliet, 1990; Ilo, 1985; Ledesma, 1982). The College should address these issues critically in their extension programmes if it wants to reduce inequality between Sibalew and other barangays. It is necessary for the College to address these issues to prevent the occurrence of inequality between Sibalew and other barangays.

Finally, the fourth issue was related to the suggestion in the literature that institutional process needs special attention when introducing development programmes in rural areas. It was suggested by many authors that the 'top-down' approach could be moderated to be more responsive to the locals' concerns and take account of proffered constructive criticism. Such an approach would include the actual use of the 'putting people first' approach in order to circumvent the limitations of the 'top-down' process of the diffusion model. Specifically, this was emphasised by Kottak (1991) who has suggested people should come first in all stages of development projects. Cernea (1991) and Uphoff (1991) have supported such ideas emphasising the spread of participation in all stages of the project cycle.

Similarly, the barangay captain Jose IngaUa described his key role as uniting locals to perform in the spirit of *bayanihan* or fostering pleasant social relationships amongst locals. This brought about his success in developing Sibalew. Ingalla's leadership style was unique, but the subsequent effect of his leadership was Sibalew's dominance over other barangays, especially in accessing external programmes from the College. Such issues were related to the power of leadership described by Rossing and Howard (1994).

Further, it could be suggested that seminars and workshops for barangay officials about leadership and the management of their resources need to be integrated into the extension programmes of the College. This could help other barangay officials to develop competence in a more open political climate in order to effectively air divergent views on methodology, inclusiveness, implications of strategies and such like as well as accessing assistance and services from development agencies. This was linked to the suggestions of Tilakaratna (1991: 248) who stressed a major point that the constant presence of the extension agents in the community would be necessary, not just to introduce the new technologies, but "to clear the barriers for them, to play a protective role vis-à-vis vested
interests, as well as improve the people's ability to deal with and represent their interest at higher levels of social decision-making and power."

In particular, the interactions of human, social, cultural, political, technical and institutional factors were crucial in the integration of external programmes with the College. Sibalew locals were rich in actual experiences in the implementation of these programmes. Sibalew locals had established unique relationships with the College. These partnerships and alliances between Sibalew and the College helped it gain direct access to the grants and programmes of linkage agencies. This provided advantages for the College in its work in the development of Sibalew. The other barangays were isolated, especially those barangays that did not have similar relationships to those Sibalew had established with the College. Over a long period the accumulated extension efforts in Sibalew and the integration of various programmes contributed to the unequal distribution of assistance and the exclusion of other barangays from development.

In concert with these four issues, the findings of this case study suggest that a long-term plan linked to the instruction, research and extension agendas of the College with their extension programmes would be useful (see FAO, 1997). The extension programmes need a more responsive and inclusive structure for locals allowing them to voice their problems. The participation of locals in the periodic reassessment of the goals of projects is crucial. Project implementation must accommodate feedback in order to reduce problems with inequality.