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ECOTOURISM, HOUSING AND COMMUNITY LESSONS FROM CAM SUR PHILIPPINES

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Ecotourism, Housing and Community: Lessons from Cam Sur Philippines

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Abstract

Studies reveal housing issues as one setback resulting from tourism. Indeed tourism take priority over the local residents' needs and desires, pushing the locals aside. This predicament is in disparity with concepts associated with community involvement in ecotourism. However, studies on community-based ecotourism demonstrate how tourists are attracted to an experiential learning of local culture and how it contributes to the sustenance of the host community.

This paper investigates *Gawad Kalinga* Communities in the province of Cam Sur Philippines, where housing provision for the poor and homeless residents are seen as tourist attractions. Findings demonstrate how the process of housing provides a model for upholding the principles of ecotourism, leading to the creation of new communities as well as the upgrading of existing ones. It is argued in this study that ecotourism may be improved if the housing process is integrated in the plans and policies for tourism development.

“All they care about is to have a roof over their heads.” This is the response of one researcher doing housing studies for indigenous communities, when asked about the relationship between community housing and ecotourism.

Communities that are located in ecotourist destinations have become subject to a number of studies on ecotourism. These studies are mostly concerned on tourism's negative socio-economic and environmental issues, without clarifying the role of communities in resolving such issues. **Are the communities really after the welfare of their own household alone, or are they also taking their share in the development of responsible tourism? What are their strategies for housing and how much does it influence strategies for ecotourism?**

This study investigates housing communities located in Cam Sur Philippines. Camarines Sur is a province in the Bicol Region of the Philippines. Also known as CamSur, the province was chosen due to its radical transformation, from a region that is previously known as one of the poorest regions in South-east Asia, to one that has become top tourist destination in the Philippines. What makes this region distinct from other ecotourist destinations in the country, is that housing communities are seen as tourist attractions, in particular, the **Gawad Kalinga (GK) Communities** that was implemented through collaboration among multi-sectored partnerships (Regional Development Council Region V, 2010). The kind of approach to housing opened up venues for a unique tourist experience through interaction with the community. Opportunities for social tourism provided livelihood opportunities for the residents in the process. In recent development, the community's partnership with the GK Foundation has brought housing provision in a larger scale, as more people in other parts of the region eventually became interested to be part of the program.

The study argues that though there is a need for locally-produced and affordable housing, particularly in remote areas that inhibit potentials for tourism, it has not been given significant attention as a vital feature in ecotourism initiatives, as well as in research pursuits in that field. Reports show how the introduction of infrastructure that is in favor of tourists leads to the increase of tourist arrivals. As a consequence, locals who ultimately find housing unaffordable and inappropriate (Loffler & Steinicke, 2006; Ryan & Montgomery, 1994), are forced out of their properties, whether or not they gain economic benefits out of employment generated by tourism.

On the other hand, this study demonstrates that the implementation of a unique approach to housing increases the capacity of the locals to be involved in the ecotourism pursuits in their community. In effect, the development of local villages effectively draws tourists into the development not only for the natural characteristics of the tourism site, but more importantly, for the unique social and cultural experiences. This is argued in studies asserting the significance of preserving the vernacular identities of communities (Sofield, 1993); (Turker & Dinciyurek, 2007).

The Case Communities

This study investigates not just any other kind of housing programs, but a community-based approach to housing that aims to be responsive to its environmental, cultural, and economic conditions, such that the community is eventually mobilized to carry out community-based ecotourism effectively. It is in this premise that two GK housing communities were selected. These villages are promoted as tourist attractions in the region. The *Gavad Kalinga* Community Development Foundation (GK) is a Philippines-based non-profit organization that was started in 2003. It is recognized for promoting self-help approach in housing as a viable solution for addressing housing issues in the Philippines as well as in other developing countries.

To establish comparisons that would demonstrate the relationship between housing and ecotourism strategies, there are two communities selected to represent Government-administered villages aside from the GK-administered communities. The two GK communities that are located in the province of Cam Sur are: **GK Character Village, Iriga City** and **GK Puna Village, Libmanan**. The other two Government-administered communities that are adjacent to the GK communities, respectively are: **Sierra Homes, Iriga City** and **Mambulo Nuevo Housing Association Libmanan**.



Figure 1 - Map of Cam Sur Province showing Housing Communities in Libmanan and Iriga



Figure 2A/2B - The GK Case Communities
(From left) GK Puna Village, Libmanan and GK Character Village, Iriga



Figure 3A/3B - The Government-Administered Case Communities
(From left) Mambulo Nuevo Housing, Libmanan and Sierra Homes, Iriga.

“ROUTE MAP” ESTABLISHING THE RESEARCH METHODOLOGY

A number of tourism studies outline problems with concepts of tourists, tourism and community. However, they are mainly targeted to identify differences in hosts, and the impacts of tourism, but not so much in defining the term ‘community’ as an emphasis on power, decision making or dependency “ (Pearce & Moscardo, 1999). While the fieldwork in this study utilized ethnographic study as well as social survey work, the approach discussed herein promotes a collective representation of social phenomena perceived by community, which are broad descriptions, instead of isolated, individual attitudes of residents. The research approach adopted in this study is essentially multi-method and is useful for case studies (Yin, 2003, p. p.136), especially for tourism research (Beeton, 2005, p. p.136).

Two-phase Research Design

There were two phases employed to assess development interventions: process evaluation and outcome evaluation.

Phase 1: Process Evaluation – Grounded Theory Method

Process evaluation in this study refers to the assessment of housing development in GK Communities in Cam Sur, with the purpose of identifying factors that support or constraint ecotourism. In particular, qualitative data that captures and discovers meaning once the researcher immerses himself in data (Neuman, 2006) were used to support grounded theory approach (Strauss, 1990). This involved multiple perspectives obtained through:

- (1) In-depth interviews with heads of organization and government officials;
- (2) Interviews and focus group discussions (FGD) workshops among community leaders or officers, private partners and government officials;
- (3) Blogs written by the tourists and participants of the GK program as feedback, which was published in the online GK newsletters;
- (4) Government reports on programs and policies on regional and city/municipal levels;
- (5) Photos taken on-site, as well as collections of old photos obtained from volunteers or caretakers;
- (6) Personal Visits and observations in Cam Sur and other top ecotourist destinations in the Philippines, i.e. Boracay, Bohol and Cebu.

In order to analyze data, the researcher first compiled data that emerged from interviews, FGD interviews and GK blogs. This led to the *coding paradigm*, which identified themes classified under the following: (1) *phenomenon* – the central idea, even , happening, incident, about which a set of actions is directed at, or related to; (2) *causal conditions* – events, incidents, happenings that lead to occurrence or development of a phenomenon; (3) *context* – the specific set of properties that pertain to a phenomenon; (4) *intervening conditions* - conditions that act to either facilitate or constrain the strategies; (5) *action strategies* – directed at managing, handling, carrying out responding to a phenomena as it exists in a context; and, (6) *consequences* – outcomes which may not always be predictable or what was intended.

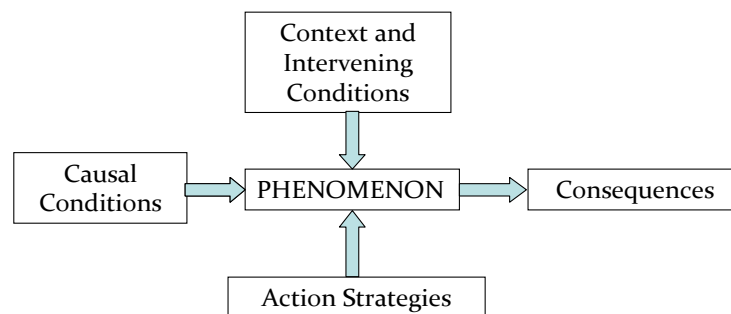


Figure 4 Coding Paradigm for Social Research Questions (Bohm, 2004)

Thereafter, the coding paradigm established were used to analyse data from other sources such as government reports, photos, observations and secondary sources on housing and ecotourism. This phase allowed the researcher to elaborate on the factors identified in the coding paradigm.

Phase 2: Outcome Evaluation – Criteria-based Survey Method

The process evaluation is a qualitative assessment of “conditions” and “action strategies” that support or constrain the occurrence of the “phenomenon”, which bears corresponding “consequences”. However, this research attempts to go further by analysing, in particular, the ways by which the “consequences” are influenced by the identified “action strategies”. In this regard, there is a need for an outcome evaluation to support the grounded theory coding paradigm. In this study, outcome evaluation refers to the assessment of housing strategies, to determine the degree by which housing influence ecotourism in terms of community involvement. Aside from the two GK Communities that were chosen for the process evaluation, two other communities adjacent to each of the sites were selected to represent government-administered communities.

Particular strategies for housing and ecotourism were identified in the FGD Workshops conducted in the four case communities. To aid in the process, the tools for evaluating strategies for both housing and ecotourism, was utilized, based on the following references:

1. *Best practices methodology* in the research, “Remote Area Indigenous Housing”. The methodology utilized a “two-dimensional matrix, with one dimension describing the stages of the housing provision process, and the other dimension representing the components of housing provision” (see Table 1);
2. *Criteria for principled ecotourism evaluation* as applied in “Toward a Principled Evaluation of Ecotourism Ventures”. This systematic approach to evaluation of ecotourism ventures employed a set of 6 principles as the basis for evaluation (see Table 2):

Table 1: Indigenous Housing Best Practice Model (Minnery, Manicaros, & Lindfield, 2000)

Components of Indigenous Housing:
1. FUNDING – sources, accountability, affordability
2. SKILLS AND DEVELOPMENT TRAINING – community skills and training
3. TECHNOLOGY – materials and construction techniques, support infra
4. ORGANIZATION – roles of sector agencies, organizational structures
5. CULTURAL FACTORS– family relationships, spiritual and social concerns
6. HARD & SOFT INFRASTRUCTURE – transport, electricity, water, social services

Table 2: Principled Evaluation of Ecotourism Ventures (Wallace & Pierce, 1996)

Criteria for Principled Evaluation of Ecotourism Ventures”
1. Entails a type of use that minimizes negative impacts.
2. Increases awareness and understanding of an area’s natural and cultural systems
3. Contributes to the conservation and management of natural areas
4. Maximizes early and long-term participation of local people in the decision process
5. Directs economic benefits to local people which complement traditional practices
6. Provides special opportunities for local people to utilize natural resources.

The “action strategies” obtained from the FGD workshops among community leaders were used to formulate a survey questionnaire. Household representatives from each of the four communities were asked to rate on a Likert scale, their participation in the strategies for housing and ecotourism. In order to analyze the involvement of the community in each of the strategies in comparison with other communities, the means of the responses were calculated, and then summarized using the One-Way ANOVA. The mean responses are used to establish hierarchy of community involvement, and then to group the communities that are either significantly different, or otherwise. Dotplots are shown to illustrate these groupings.

The relationship of housing with ecotourism is also ascertained through General Regression which is used to determine how community involvement in ecotourism strategies is influenced by community involvement in

housing strategies. The values in the regression equation provide an estimated change in the mean response (for ecotourism strategies) for each unit change in the predictor value (for housing strategies). This tool also allows for a measurement of the amount of variability in the observed response, and thereby helps to determine the model with the best fit. For this purpose, scatter plots were utilized to demonstrate the relationships.

The use of both qualitative and quantitative methods of research assert the importance of triangulation, which is the “process of using multiple perceptions to clarify meaning” (Stake, 2003, pp. p.147-148). The strength of using a variety of methods is vital in the completion of the study “as tourism seeks to build its own distinct research tradition” (Walle, 1997, p. 147) - a field that deals with complex phenomena. As such, the potential to “search for convergence in order to make the propositions sound and valid” is increased. (Decrop, 1999, p. 160).

“BOTH FEET ON THE GROUND” HOUSING AND ECOTOURISM IN CAM SUR PHILIPPINES

The province of Cam Sur is now considered as the top tourist destination in the country, after the government and residents had been actively collaborating to promote the region to adventure and nature enthusiasts. With its current administration, Camarines Sur has been projecting a revitalized image of the Bicol Region. Despite being known as one of the poorest regions in the South-East Asia, this last decade has brought radical transformations, with investments on infrastructure particularly, accommodation facilities that feature the majestic views of mountains and lakes and abundant flora and fauna.



Figure 5 - Cam Sur Watersports Complex (source:<http://www.skyscrapercity.com/showthread.php?t=521763&page=559>)

Camarines Sur is now home to 46 Gawad Kalinga (GK) communities, with 60-100 households per community, aside from other government-initiated local housing programs. The province is now known for its tourism villages which aim to model housing development in the country.



Figure 6a/6b - GK Character Village, Iriga City Cam Sur (source: Iriga City Planning and author)

“GROUND WORK” – PROCESS AND OUTCOME EVALUATION

The application of Grounded Theory Method on the analysis of qualitative data involved a sequential approach. Data is initially processed according to designated labels and themes. These themes are then grouped into categories to establish relationships. Finally, the themes and categories are refined to determine the core category whereby all other factors relate to, and develop the logical process or story (Strauss, 1990). Data from interviews, FGDs and newsletter articles were analysed to reveal distinct themes relevant to the central category under study.

The Phenomenon of Tourism in Poor Communities in Cam Sur Philippines

A. Phenomenon

Prevailing Themes:

Tourism in Poor Communities

Holistic housing program with opportunities for tourism

The phenomenon of tourism in poor communities is not a new concept in the Philippines and in other developing countries. Apparently, tourists for many years, travel to poor countries to look for venues to experience poverty that in the end provides an opportunity to realize how much other people are suffering, while they take for granted their own wealth. This new phenomenon called social tourism was taken to a new level, particularly when housing through GK not only provided tourists a chance to see poverty - amongst the poorest of the poor - but also to experience the different ways that poverty is addressed. The ways solutions are applied become a social attraction itself.



Figure 7 - GK Character Village
(taken during a local festival; Source: Iriga City Planning)

GK communities in Cam Sur have demonstrated a cultural revolution in the Philippines, with emphasis on behavioural aspects to be the primary factor behind economic development or decline. The traditional “bayanihan spirit” in fact has evolved to apply to modern-day Filipino housing program such that people from different sectors get engaged to contribute not just for the building of houses, but in building lives. According to the Chairman and founder of GK, there could be several reasons for visitors to come to GK: for private corporations, this is a new project for employees to participate in Corporate Social Responsibility (CSR); for politicians, this has political value; for universities, this is a good place for immersion; for foreign tourists it is social awareness combined with pleasure tours to nature destinations. Regardless, it is in these visitations that the community themselves benefit from. The fact that their houses are being visited, in itself, is a benefit, as it brings out pride in what residents can do to help themselves overcome poverty, and how much they could contribute to a meaningful and pleasurable tourist experience.

B. Causal Conditions

Prevailing Themes:

Socio-cultural Factors

Filipino “bayanihan” (mutual help) community spirit

Environmental Factors

Organizational Factors

Every country has its own unique self-concept and situation. In regions where poverty has become a “way of life” the development challenge is enormous as it involves overcoming centuries of injustice. In the Philippines, poverty has become a common thing, and people simply want to survive the day. The “*hacienda*” labour system obtained during the colonial period, for example, has resulted in the big gap between the rich and the poor. But what remained intact throughout history are the values placed on relationships with neighbours and community. The strong sense of family relationships and community spirit (known as “*bayanihan*”), as well as the the pursuit for “cleanliness next to Godliness”, are some of the values and traits



Figure 8 - Community Store in GK Puna Village, Libmanan
(source: GK Libmanan)

that lingered. However, the problem of inequity, crime and corruption have jeopardized the capacity of the people to express traditional values, instead replaced them with apathy and greed. This is likewise manifested in environmental degradation. Poverty might actually be the biggest culprit in the destruction of the environment. Hence GK's motto is "Save the Poor, save the environment. Save the environment, save the poor".

The values formation program which was started by the members of the religious organization called Couples for Christ (CFC) aims to create a good foundation in bringing out the good in the poor. Attendance and participation to the Christian Life Program is a prerequisite to participation in the shelter programs of GK. But even though religion plays a big part in the popularity of the program across various sectors, yet it cannot be considered as the most significant, for despite the religiosity of most Filipinos, people have remained poor. Perhaps, even religion must be causing or perpetuating poverty.

This brings to fore the high level of organization and sense of accountability of GK, which are attributed to the role of "caretakers" (volunteers who assist by conducting values formation programs, as well as other community activities). These workers are not salaried, but they spend substantial time and effort to uphold a caring and loving environment, in the desire to see the poor to realize their dreams. Their mere presence models the lifestyle of caring for others and becomes part of the transformation of the poor, promoting peace and unity. In one of the feedback from a volunteer, the hard work of previous caretakers was recognized such that new volunteers are challenged to continue on, treating their contribution as another legacy for future generations of volunteers. It must be acknowledged however that despite such efforts, the organization has been criticized for certain uncooperative members of the community. Nonetheless, they find that as the reason why their service is significantly vital to the success of the program.

C. Contextual Conditions

Prevailing Themes:

Potential for nature-tourism

Community Tourism

Multi-sector engagements

Development in the region of Cam Sur starts with the recognition of what is already there. With the vast natural resource of the region, the Regional Development Council of Bicol Region recently updated the Medium Term Regional Development Plan (MTRDP) "to address the challenges following the creation of the super regions in the region as a major tourism hub." One of the roles of the region is to serve as an ecotourism destination, taking into account the presence of unique and diverse flora and fauna. The province of Cam Sur is flanked by the richest marine fishing grounds in the country. Mt. Isarog and Lake Buhi are some of the natural attractions in the Province that were regarded as one of the Key Eco-tourism Destinations in the country.



**Figure 9 - View of Mt. Isarog
from GK Character Village, Iriga City
(source: author)**

Ecotourism provides the opportunity to encounter locals and their culture. The advantage for residents is that it provides livelihood, and motivates cleanliness and orderliness. In GK communities, the residents' interaction with foreigners has boosted their sense of pride, and even served as learning opportunities, particularly in developing communication skills. For the tourists, life-changing experience range from experiencing local culture and partaking in social responsibility while gaining pleasurable nature tours. For several tourists, "arriving as a tourist, and leaving as a family" has created lasting impressions. Meanwhile, the government benefits by gaining increased participation in public events such as in cultural festivals, environment conservation, i.e. planting nurseries, as well as beautification and peace promotion, paving the way for niche-making in ecotourism that makes the destination more marketable.

When communities are empowered, the environment is maintained and conserved. At first, other people thought that GK is just an ordinary housing program. But as houses are built of *bayanihan* or community spirit, the concept has attracted other people from different sectors to get engaged. Government officials, academic institutions, environmentalists, commercial enterprises, international corporations, private individuals, as well

as curious travellers are coming to the sites to make their contribution. In a sense, one dollar for a house is leveraged by one dollar of land donated by private individuals, plus one dollar of utility system donated by government, plus one dollar of labor equity given by the poor themselves as well as by volunteers. Hence, the limited resource of government for community housing is leveraged. The partnerships created have indeed eradicated donor fatigue.

D. Action Strategies:

Prevailing Themes:

Housing through the GK Way

Provision for the poor

Skills & Development

Livelihood opportunity

Environment Conservation

Agricultural productivity

Social Transformation

Peace in conflict-areas

Christian Life Program



**Figure 10 - Mutual Self-help Housing
in GK Character Village, Iriga City
(source Iriga City Planning)**

Realizing housing implementation through GK stems from the capacity of the community as a whole, to make their vision a reality. Its success led to the replication of villages in various provinces in the country, with claims that it is now contributing to poverty alleviation through self-sustainable community development & housing.

Livelihood opportunities through growing organic vegetables, making slippers, soaps, fertilizers and handicrafts were introduced and augmented fishing and agricultural productivity. Others engaged in training and development in construction, waste management, restaurant management, bed & breakfast hospitality and handicraft. “Caring for the environment” was promoted by the building of sustainable farms and helping the community to become stewards of the environment, through the *Green Kalinga* (Green Care) program.

Likewise, the *Bayan-anihan* (nation-harvest) program is where each family was assigned 1x10m farm plots that would accommodate vegetable plants to make produce for one kind of dish, encouraging families to swap their produce with other families who are planting for another type of dish. This concept is to eradicate hunger through backyard farming to produce food-for-the-table.

Such approaches to housing create a sense of security amongst the residents. Peace among conflict areas was promoted. Religious meetings were encouraged. Safe communities were created, transforming danger and poverty into nation-building. There is hope that when poverty is ended, progress is within reach. Maintaining these strategies was tough for the residents, but they value the outcome saying, “If it was easy to get, it would have been easy to give up”. The process made them realize that they should not treat themselves as living on a low status anymore, especially that other people care to visit them. With the influx of visitors in the villages, they learn more about life. It inspires them to take care of themselves and their environment more.

E. Development Challenges

Prevailing Themes:

Organizational Issues

Environmental Issues

Social Service Issues

Policy Issues

Funding Issues



**Figure 11 - GK Character Village, Iriga
(after the typhoon in 2009; Source: Iriga City Planning)**

Development comes with a number of challenges. Interviews with community leaders revealed that it takes effort to motivate full cooperation among residents. Even after repeated participation in values formation, some residents remain uncooperative, violating certain conditions. Caretakers simply acknowledge that it takes time for people to respond to the values formation. But in order to show how serious the organization is in maintaining order, there have been

cases where some violators in GK Puna and GK Character Village were evicted. On the other hand, household representatives expressed that conflicts happen because apparently, the community is not handled properly as some leaders lack communication and organizational skills. Leaders need improvement in handling policies such as “no-house-extension policy”, waste management, and “clean-environment policy”. Based on interviews, it is common perception that 3 out of 10 community members are violating these policies. Hiring a community organizer is one intervention to reduce the number of uncooperative residents.

Despite wide options for sourcing and managing water, the water system is unreliable in a number of communities throughout the province. It has affected irrigation of organic farms and flower gardens, thus the decrease in agricultural productivity. In GK Character Village, though the residents were provided with free electricity by the local government, it was nonetheless taken as a problem by most residents, as it causes bickering among neighbours. Those who acquire electric appliances, which may actually be perceived as a sign of economic progress, were rather accused of insensitivity and unfairness. Thus there is a tendency for some families to isolate themselves to avoid confrontation.

The 2009 Typhoon “Reming” that caused severe damage to completed houses has dampened the community spirit, but nevertheless it brought out issues that allowed local participation in decision-making. Bicol is known as a typhoon-prone area and requires sturdier buildings to withstand 250km/hr wind velocity. Another problem is the use of synthetic fertilizers which was found to be unavoidable, as bio-organic fertilizers were found unsuitable for certain soils in some areas. This poses a risk to clean-air environment. Last but not the least, profits from community income-generating activities were also not transparently reported nor monitored in certain instances. Donations were coming in, but some members of the community are not aware of how they were managed.

F. Consequences

Prevailing Themes:

Influence in government housing

Sustainability

Community involvement in ecotourism

Over the years, the government has implemented GK as a template for housing program, extending its application to tribal communities, such as the *Agta* Tribe in Iriga.

Reports show that compared to existing public housing programs, GK has got more sustainable programs. Now, there is an increasing demand by some residents of government-administered housing, to conform to the GK housing programs. This tendency for government to conform to GK programs are also attributed to the contribution of caretaker teams and volunteers who remain to be involved, even after the houses were awarded to the residents. In fact, the active involvement of the caretakers resulted in the hiring of some of them into local government positions related to housing. Nevertheless, the city mayor in Iriga and her staff asserted that those in the leadership must also have the passion to realize a big vision - the creation of a sustainable system that can be implemented through the active support of government leaders.

The influx of tourists in the villages is evidence that GK has developed to become a model village for ecotourism. Sustainable practices highlight local participation and decision-making in community organizing. The community's support for ecotourism initiatives of the government is evident in their participation in tree-planting, waste management campaigns, cultural festivities, agro-tourism festivals and organic farming.

The province of Cam Sur is named as designer village for tourists and volunteers to GK that is now known as “colourful villages for the poorest of the poor”. Tourist reports how their stay was made meaningful and enjoyable because of the people who share their homes and experiences with them. Aside from nature attractions, it was actually the people's hospitality that tourists come back for.



Figure 12 - Beautification in GK Puna Village, Libmanan
(Source: GK Libmanan)

The GK Model for Housing in Ecotourist Destinations

The following graph summarizes the relationship of the central phenomenon, which is tourism in poor communities, with “causal and contextual conditions”. Both “action strategies” and “challenges” are considered development interventions that together, produce certain outcomes or “consequences”.

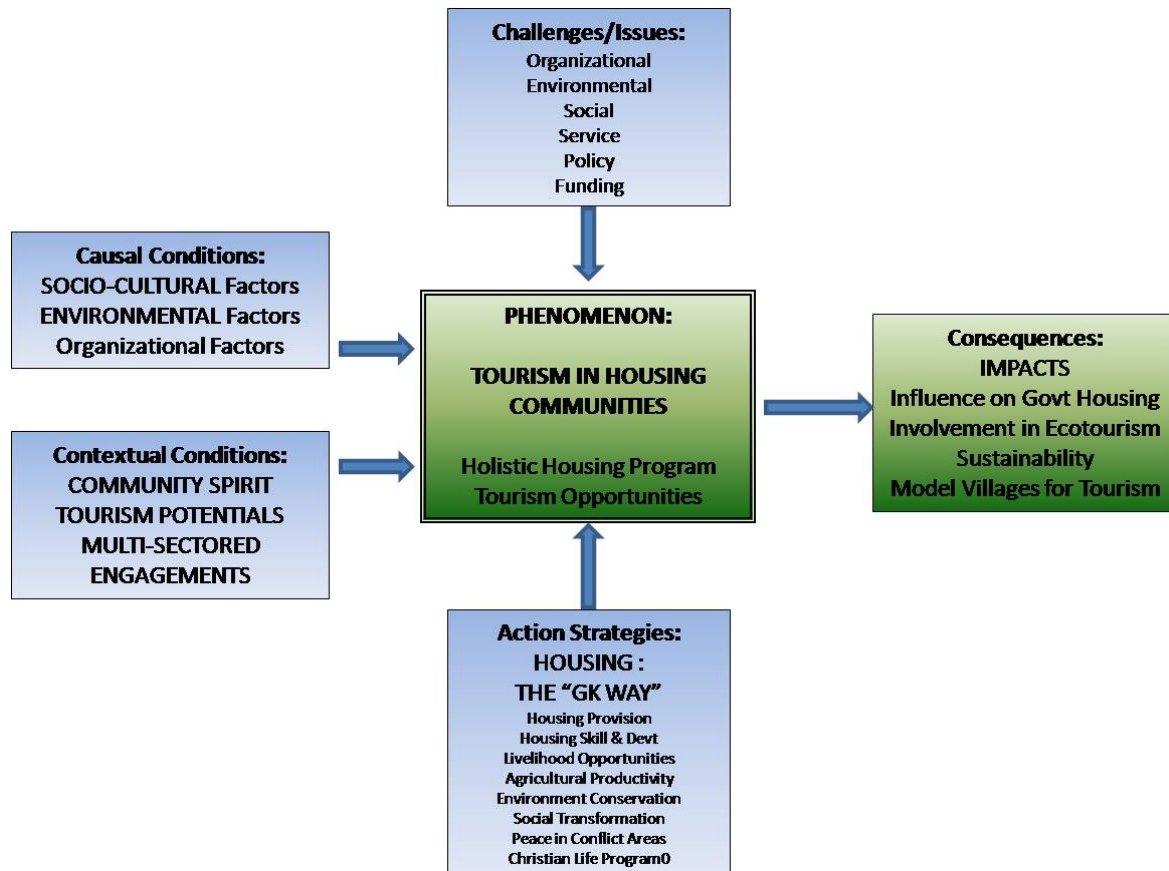


Figure 13 - Model for Tourism in Housing Communities in Cam Sur Philippines (Source: author)

The Action Strategies

In the outcome evaluation phase, the approach is to come up with a quantitative assessment of how the strategies for housing influence ecotourism. The following outlines the specific strategies undertaken by the community. These are obtained during the FGD Workshops conducted in GK Puna Village and GK Character Village.

Table 3 Results of FGD Workshops in GK Communities, Iriga City and Libmanan, Cam Sur, Jan/Feb 2011

I. HOUSING STRATEGIES	II. ECOTOURISM STRATEGIES
<p>A. Strategies related to organization</p> <ol style="list-style-type: none"> 1. Call for regular meetings or assembly 2. Recording of events and activities (e.g. on a logbook) 3. Formation of groups to do bayanihan 4. Promotion of peaceful relationships 5. "Leadership by example" 6. Appointment of leaders or supervisors 7. Solicitation of ideas from members 8. Support from people who are non-residents eg. CFC) 9. Unity among community 10. Holding of regular elections for community leaders <p>B. Strategies related to skills and development</p> <ol style="list-style-type: none"> 1. Assignment of tasks for house building 2. Neighborhood cleanliness drives 3. Conducting seminars on building materials 4. Conducting trainings initiated by LGUs 5. Production of native souvenirs (vase, flower, baskets) 6. Farming vegetables for family 7. Trading vegetables and native produce 8. Creation of standards for waste management eg segregation 9. Obeying/following standards for waste management <p>C. Strategies related to house construction</p> <ol style="list-style-type: none"> 1. <i>Bayanihan</i> Mutual Help in the community 2. Self-help construction 3. Skilled worker assigned to unskilled ones 4. Creation of standards for basic/core house 5. Obeying/following standards for basic/core house 6. Building structures that are typhoon-resistant 7. Formulation of standards for extensions 8. Obeying/following standards for extensions 9. Laying out of houses according to land contour/slope <p>D. Strategies related to culture</p> <ol style="list-style-type: none"> 1. Participation in values formation, eg. CLP 10 tracks 2. Promotion of good relationships with family 3. Promotion of good relationships with community 4. Participation in religious groups eg. CFC 5. Creation of programs to welcome visitors 6. Preservation of culture, eg. Diligence, assimilation 7. Teaching good values to children 8. <i>Bayanihan</i> mutual help in the community 9. Encourage, instead criticize fellows 10. Creation of community celebrations, eg. Birthdays <p>E. Strategies related to service & infrastructure</p> <ol style="list-style-type: none"> 1. Recording of Harvest (rice, vegetables, etc) 2. Use of organic fertilizers 3. Production of new farm products, eg Citrunella 4. Trading/Business of new farm products 5. Cheap/inexpensive water bills 6. Cheap/inexpensive power bills 7. Profit from water consumption for the community 8. Profit from power consumption for the community 9. Profit from rice eg.NFA for the community 10. Creation of school buildings <p>F. Strategies related to funding</p> <ol style="list-style-type: none"> 1. Creation of partners from abroad/foreign 2. Support from local government 3. Beautification of surroundings to increase visitation 4. Receiving of donations from visitors/tourists 5. Management of finances by non-resident groups 6. Support from schools and educational institutions 7. Personal support from private sector 	<p>A. Strategies done to minimize negative impacts of housing</p> <ol style="list-style-type: none"> 1. Maintain cleanliness 2. Proper land use, eg. For farming, housing, roads, etc 3. Creation of waste disposal management 4. Creation of standards for housing design 5. Obeying/following standards for house design 6. Creation of standards for extension/improvements 7. Obeying/following standards for extension/improvements 8. Beautification of surroundings like landscaping 9. Layout of houses according to land contour/slope 10. Imposing of penalties for violations <p>B. Strategies done to increase the awareness and understanding of the natural and cultural systems</p> <ol style="list-style-type: none"> 1. Assignment of tasks and responsibilities 2. Holding of community programs/celebrations 3. Imposing of penalties for violations 4. Promotion of ways to be reminded of rules & regulations 5. Opportunity to welcome and serve guests/tourists <p>C. Strategies done to contribute to the conservation and management of natural areas</p> <ol style="list-style-type: none"> 1. Profit from organic fertilizer (from compost) 2. Profit from vegetable farming 3. Profit from livestock/poultry 4. Profit from <i>sari-sari</i>/convenience stores 5. Cheap/inexpensive commodities from <i>sari-sari stores</i> 6. Profit from water consumption 7. Profit from power consumption 8. Profit from tourist accommodation (Bed&Breakfast) 9. Use of funds from profit for community maintenance <p>D. Strategies done to maximize early and long-term participation of local people in the decision process</p> <ol style="list-style-type: none"> 1. Production of native products from natural resources 2. Production of native products from recycled mats 3. Production of native products from plastic 4. Selling of ornamental plants eg bonsai 5. Production of ropes from coconut husks 6. Use of stones/rocks for landscaping 7. Use of nonconventional souvenir items eg wallets bags 8. Vegetable farming for the community <p>E. Strategies done to direct economic benefits to local people which complement traditional practices</p> <ol style="list-style-type: none"> 1. Conduct of livelihood training eg soap/candle making 2. Conduct of leadership training/seminar 3. Conduct of training for health & sanitation 4. Conduct of seminar for waste disposal/management 5. Preservation of cultural traits (diligence, assimilation) 6. Participation in religious activities eg prayer mtgs 7. Organization of sports tournaments eg basketball <p>F. Strategies that provide special opportunities for local people to utilize natural resources</p> <ol style="list-style-type: none"> 1. Care for natural resources 2. Standards prohibiting burning ie of plastics 3. Proper care of animals 4. Waste segregation 5. Following/obeying rules for waste disposal 6. Implementing recycling ie of bottles, plastics, steel 7. Prohibition of insecticides 8. Maintenance of cleanliness 9. Prohibition of animals, eg. Poultry 10. Planting and replanting of trees

Community Involvement in Housing Strategies

The graphs below are derived from generating the mean response of household representatives on their perception of community involvement to strategies identified in the FGD Workshops, rating their response on a Likert Scale, from zero to 5: zero (for no involvement) to 5 (for high involvement). There were 20 respondents from GK Iriga representing 104 families; 17 respondents from GK Libmanan representing 67 families; 12 respondents from Mambulo Nuevo representing 34 families, and 6 respondents representing 24 families. The mean responses were then subjected to One-way ANOVA, and then, used Fisher Method of Comparison, to reveal groupings based on similarities of responses, as shown in the following table.

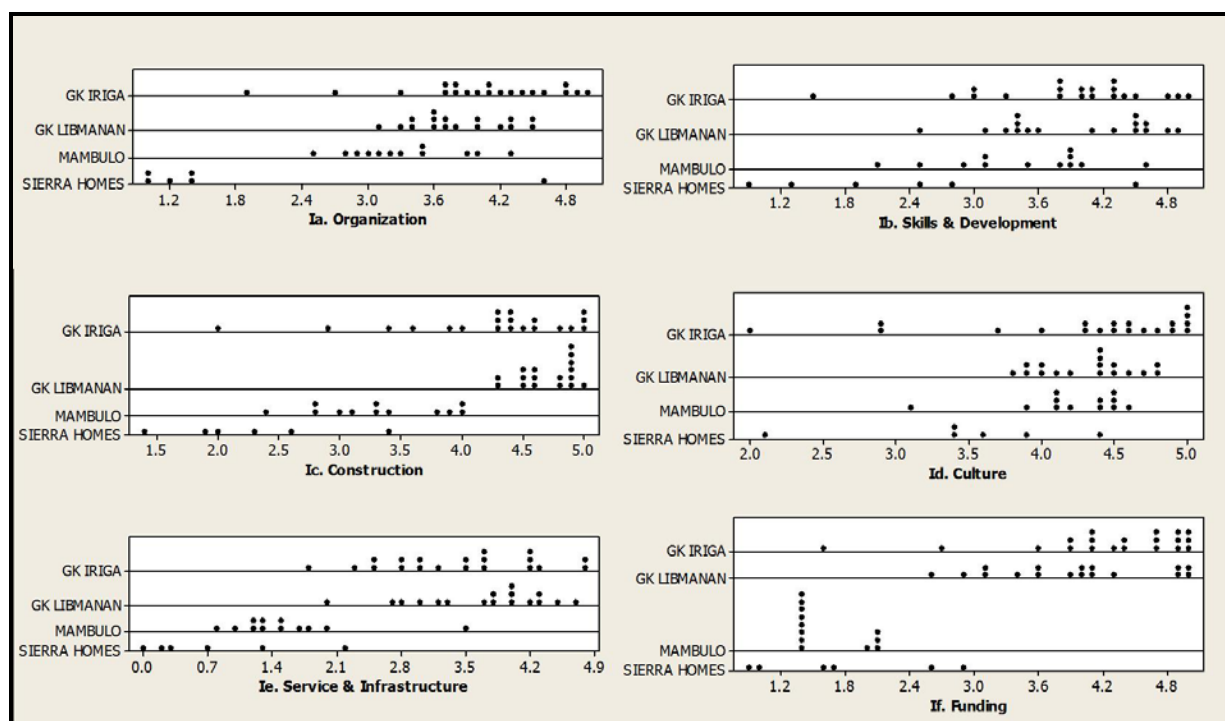


Figure 14 - DOT PLOT SHOWING MEAN RESPONSES FOR COMMUNITY INVOLVEMENT IN HOUSING STRATEGIES (Software application: Minitab)

The table below reveals that community involvement for housing in the two **GK villages** range from high-middle to high levels. Similarities in response of the two communities are reflected in almost all the strategies, except for strategies related to house construction.

Table 4 - LEVEL OF COMMUNITY INVOLVEMENT IN HOUSING STRATEGIES (APPLYING ONE-WAY ANOVA)

	HOUSING STRATEGIES	GK Character Villg IRIGA	GK Puna Village LIBMANAN	Mambulo Nuevo LIBMANAN	Sierra Homes IRIGA
1	Strategies related to organization	4.2 (high)	3.9 (high)	1.6 (low)	1.7 (low)
2	Strategies related to skills and development	3.8 (hi middle)	3.9 (hi middle)	3.4 (hi-middle)	2.3 (low)
3	Strategies related to house construction	4.2 (hi middle)	4.7 (high)	3.3 (low middle)	2.2 (low)
4	Strategies related to culture	4.3 (high)	4.3 (high)	4.2 (high)	3.4 (low middle)
5	Strategies related to service & infrastructure	3.4 (hi middle)	3.7 (hi middle)	1.6 (low)	0.8 (very low)
6	Strategies related to funding	4.2 (high)	3.9 (high)	1.6 (low)	1.7 (low)
	OVERALL HOUSING STRATEGIES	4.01 (high)	4.06 (high)	2.91 (low middle)	2.05 (low)

For responses in **Mambulo Nuevo and Sierra Homes**, while community involvement varies from very-low level, to high level, the more common response mean is low level. It is observed that Mambulo Nuevo has similar response with both GK villages in strategies related to skills & development, and well as strategies related to culture. Response in Sierra Homes is different from GK villages, in all strategies.

Community Involvement in Ecotourism Strategies

The graphs below reveal that community involvement for ecotourism in the two **GK villages** range from low-middle to high levels, although the more common response is either high or high middle, particularly in GK Libmanan. Similarities in responses of both communities are reflected in only three strategies, i.e. Strategies A, B, and E, while the responses are different in the other three strategies.

For responses in **Mambulo Nuevo and Sierra Homes**, community involvement again varied from very-low to high levels, although the more common response mean is low level – almost the same as in housing strategies. It is observed that there are mostly differences between the two communities, as well as with the two GK communities, except where Mambulo Nuevo has similar response with the GK communities in Strategies A and D. Response by Sierra Homes is different from GK in almost all strategies, except for Strategy F (local people utilizing natural resources), which accounted for their participation in a few sessions conducted to promote *Bayan-aniban* (nation-harvest) program. The residents of Sierra Homes were trained to plant vegetables in 1x10m plots assigned to them in the the Shell farm in GK Iriga.

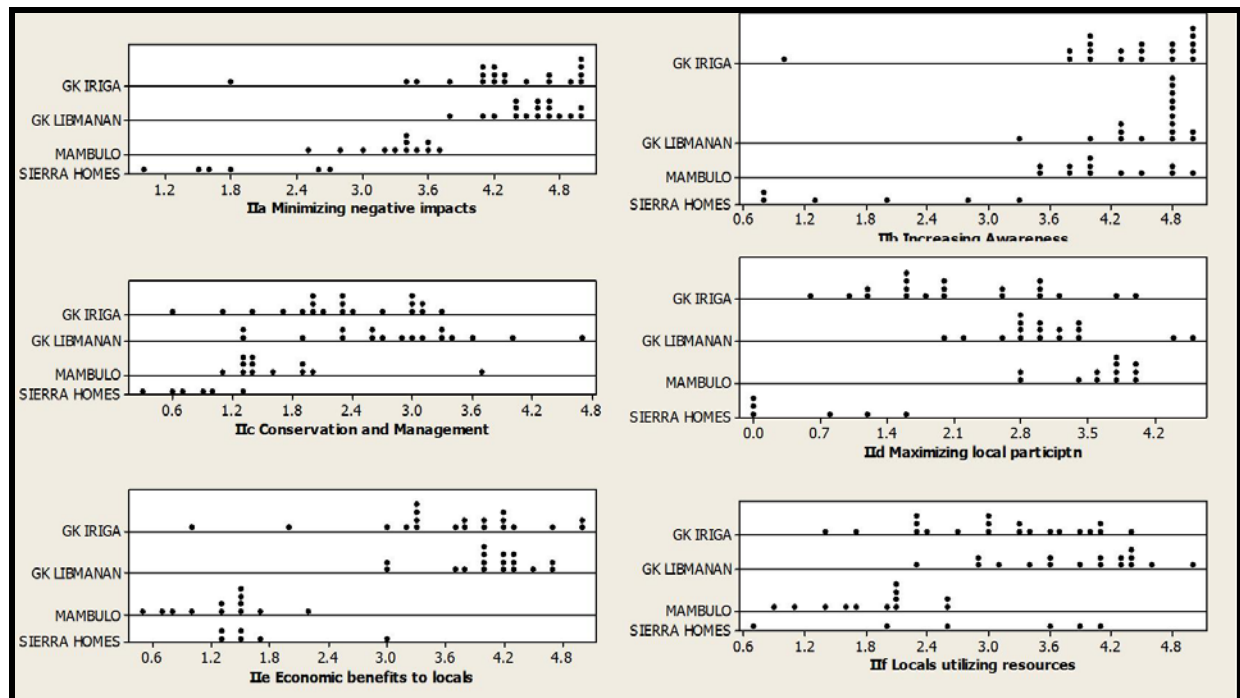


Figure 15 – DOT PLOT SHOWING MEAN RESPONSES FOR COMMUNITY INVOLVEMENT IN ECOTOURISM (Software application: Minitab)

Table 5 LEVEL OF COMMUNITY INVOLVEMENT IN ECOTOURISM STRATEGIES (APPLYING ONE-WAY ANOVA)

	ECOTOURISM STRATEGIES	GK Character Villg IRIGA	GK Puna Village LIBMANAN	Mambulo Nuevo LIBMANAN	Sierra Homes IRIGA
A	Strategies done to minimize negative impacts of housing	4.2 (high)	4.6 (high)	3.3 (hi middle)	1.9 (low)
B	Strategies done to increase the awareness and understanding of the natural and cultural systems	4.3 (high)	4.5 (high)	4.1 (high)	1.8 (low)
C	Strategies done to contribute to the conservation and management of natural areas	2.3 (low middle)	2.8 (high middle)	1.7 (low)	0.8 (very low)
D	Strategies done to maximize early and long-term participation of local people in the decision process	2.2 (low middle)	3.1 (hi middle)	3.6 (hi middle)	0.6 (very low)
E	Strategies done to direct economic benefits to local people which complement traditional practices	3.7 (high)	4.0 (high)	1.3 (low)	1.7 (low)
F	Strategies that provide special opportunities for local people to utilize natural resources	3.1 (hi middle)	3.8 (high)	1.9 (low)	2.8 (hi middle)
	OVERALL ECOTOURISM STRATEGIES	3.29 (hi middle)	3.8187 (high)	2.65 (low middle)	1.59 (low)

Consequences of Housing Strategies on Ecotourism Principles

The analysis for correlating housing and ecotourism is aided by the application of General Regression Method and illustrated through scatter plots as shown in the following figures. The regression equation was applied to measure the mean response for community involvement in housing (predictor x-value) versus mean response for each of the six principles of ecotourism. The values in the graph below indicate the coefficients representing the estimated change in mean response (y) for each unit change in the predictor value (x). For example, the table below along row A under GK Iriga, is interpreted that, for every increase of housing strategy by 1 unit, ecotourism strategy (done to minimize negative impacts of housing) increases by +0.894589.

It is interesting to note that all the coefficients have a positive value, asserting the positive correlation of housing strategies versus ecotourism. The overall coefficient (found at the bottom row) for ecotourism strategies have obtained significantly high values ranging from 0.71 to 0.86. **That means for every increase in housing there is an increase of 0.71 to 0.86 in ecotourism.**

The Summary of Model at the last column describes the amount of variation in the observed response values that is explained by the predictors. The values under the six ecotourism strategies have all represented over 50% variation, the highest being Strategy A which is, Strategies done to minimize negative impacts and, E, which is Strategies done to direct economic benefits to local people. The overall model explains 84.59% of the variation in ecotourism strategies when the model is used for prediction. This information accounts for the significance of correlation and therefore the validity of adopting the models in the analysis.

Table 6 – LEVELS OF CORRELATIONAL INTERACTION APPLYING GENERAL REGRESSION ANALYSIS

Mean for Housing Strategies (predictor x-value)- vs Ecotourism Principles (response y-value):	GK Character Village IRIGA	GK Puna Village LIBMANAN	Mambulo Nuevo LIBMANAN	Sierra Homes IRIGA	SUMMARY OF MODEL – Selecting Model with the best fit based on Level of Variation R-sq(adj)
A. Strategies done to minimize negative impacts of housing	+ 0.894589	+ 0.267583	+ 0.753358	+ 0.302536	83.83%
B. Strategies done to increase the awareness and understanding of the natural and cultural systems	+ 0.98667	+ 0.145879	+ 0.525414	+ 1.10566	72.14%
C. Strategies done to contribute to the conservation and management of natural areas	+ 0.662016	+ 1.83671	+ 0.877939	+ 0.275775	61.38%
D. Strategies done to maximize early and long-term participation of local people in the decision process	+ 1.02365	+ 1.40747	+ 0.677115	+ 0.472634	78.54%
E. Strategies done to direct economic benefits to local people which complement traditional practices	+ 0.944423	+ 0.417267	+ 1.00729	+ 0.432735	81.82%
F. Strategies that provide special opportunities for local people to utilize natural resources	+ 0.693894	+ 0.636416	+ 1.09412	+ 1.72295	56.86%
OVERALL ECOTOURISM STRATEGIES	+ 0.867539	+ 0.78522	+ 0.82254	+ 0.718714	84.87%

The graph below illustrates the slopes of each of the four case communities grouped according to the six ecotourism principles.

The mean values for GK Libmanan and GK Iriga are mostly located at the top and right side of the scale graph, while mean values for Government Housing programs are located on the lower and left sides of the graph. This indicates higher mean scores for housing and ecotourism in GK communities compared to Government housing programs.

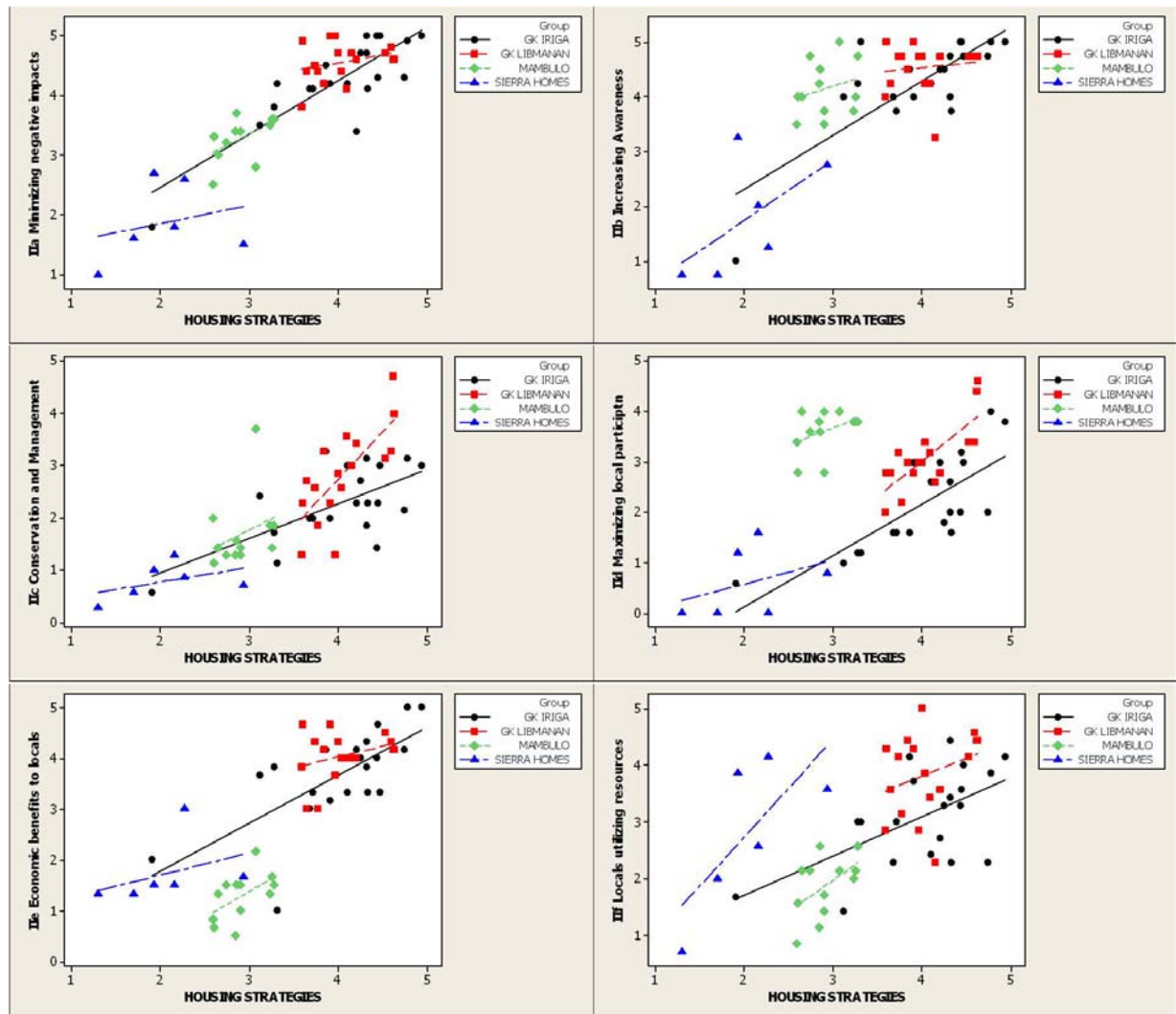


Figure 16 – SCATTER PLOT FOR HOUSING STRATEGIES VERSUS THE SIX ECOTOURISM PRINCIPLES

Summary of Correlation Analysis

The following graph summarizes the relationship of housing with ecotourism, represented by the two GK case communities, and two government case communities in Libmanan and Iriga.

The low level of community involvement for housing strategies, mostly reflected in Mambulo Nuevo and Sierra Homes corresponds to a low level of community involvement in ecotourism strategies.

GK Iriga have exhibited a higher variation in responses ranging from low to high mean responses, and this is quite manifested in the challenges in housing development such as leadership issues, funding transparency, water and electricity problems.

GK Libmanan seemed to manifest consistently higher levels of involvement for both housing and ecotourism, hence the outcome is a gradual slope compared to the other three communities. This may be largely attributed to the high level of organization and accountability of caretaker teams, leading to the increased participation in community programs and activities.

The research design is found to be effective in the evaluation of housing programs in ecotourist destinations. Overall, the selection of the four case communities demonstrates the link between housing and ecotourism, as reflected in positive correlation, high coefficients, and similarity of slopes.

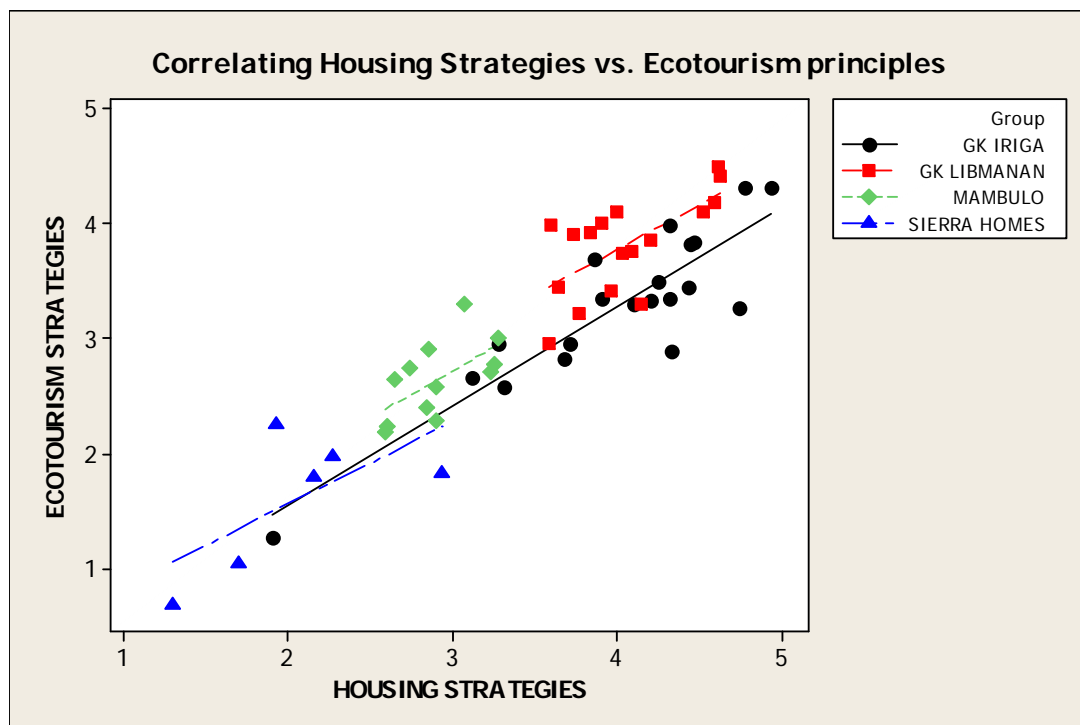


Figure 17 – Scatter Plot for ECOTOURISM STRATEGIES versus HOUSING STRATEGIES

“TURNING GROUNDS”- HOUSING AND ECOTOURISM IN CONTEXT

Building up a Model for Housing in Ecotourist Destinations

Are the communities really after the welfare of their own household alone, or are they also taking their share in the development of responsible tourism? What are their strategies for housing and how much does it influence strategies for ecotourism?

It was argued in this study that the adopting a community-based approach for housing is instrumental in the development of ecotourism. This study presents GK communities and its influence on local government housing programs in Cam Sur that has identified ecotourism as their development niche. It has demonstrated how the phenomenon of tourism in poor communities in the province was driven by sustainable strategies for housing implementation. Despite corresponding development problems, the GK programs have contributed to the community's understanding and contribution for upholding the principles of ecotourism. With sustainable strategies, the residents have recognized themselves as stewards of the environment, upholding their priorities beyond housing provision alone. Nevertheless, the model for local housing process within ecotourist destinations based on correlation analysis establishes the need to integrate local housing in the plans and policies for tourism development.

In light of the data presented, this research leads to the need for further exploration into the integration of community housing strategies into tourism plans and programs. For practical purpose, this research now sees the potential for the GK housing model to create savings on the cost of other government services through reduced expenditures on social and environmental welfare programs.

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