# Community-Based Entrepreneurship: An Alternative Social Enterprise Model for Small Communities in Poor Municipalities 

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Rural communities in poor countries all over the world are experiencing poverty due to scarcity of resources, overpopulation, and environmental degradation-which result in migration to more affluent urban areas. As a consequence of this, people from these rural communities, who moved to urban areas, subsist in squalor (Abrahams \& Peredo, 1996, as cited in Peredo \& Chrisman, 2006). Hence, in the next few decades, the United Nations (2001) and World Bank (2001) reports warned that a greater poverty rate is expected if migration to urban areas due to the lack of sources of livelihood in rural communities is not tackled immediately.

This research assumes that poverty can be significantly reduced through broad-based, locally focused solutions-specifically communitybased entrepreneurships (CBEs) to generate jobs, income, and economic value added for the municipality, city, or province. Thus, this study addresses the suitability of CBEs to bring down poverty given certain socioeconomic stressors experienced in the municipality, city, or provincial level. Additionally, it analyzes entrepreneurship theory in communities assumed to be composed of enterprises and entrepreneurs. Lastly, because
the theoretical model of CBE of Peredo and Chrisman (2006) is based on observed community efforts to address the needs of impoverished areas, the research findings should be helpful to policy makers and practitioners in developing programs that support entrepreneurship as a tool for local development.

## The Community-Based Entrepreneurship Model of Peredo and Chrisman

The community-based entrepreneurship (CBE) model of Peredo and Chrisman (2006) was proposed to realize the social and economic goals of communities. The authors define CBE as
a community acting corporately as both entrepreneur and enterprise in pursuit of the common good. Furthermore, this community behaves as an entrepreneur when its members collaborate in creating or identifying market opportunities and eventually organize themselves to exploit them. In addition, the community has to operate as an enterprise as its members work together in the production and exchange goods and/or services using the existing social structure of the community as a means of organizing those activities. (p. 315).

Using the collective skills and resources of a community, CBEs, according to Peredo and Chrisman (2006), are built to satisfy both the social and economic goals of the community. Social goals are emphasized over economic goals with governance structures being collective and management structures democratic (Peredo \& Chrisman, 2006). Community, per Peredo and Chrisman (2006), refers to "an aggregation of people in a common geographic location and not solely defined by the sharing of goals or the productive activities of the enterprise" (p. 315).

Furthermore, Peredo and Chrisman (2006) concluded that profit will not be the main "purpose of the enterprise, although some return is necessary to make the operation sustainable" (Peredo \& Chrisman, 2006, p. 316). In their parlance, the return can be used in achieving some other community purpose, which makes the "lower rate of return acceptable in exchange for the achievement of other community goals" (Peredo \& Chrisman, 2006, p. 316).

## Conditions That Influence the Emergence of CBEs

The conditions that influence the emergence of CBEs-identified by Peredo and Chrisman (2006)—are enumerated and discussed below.

Triggered by socioeconomic stress. CBEs, according to Peredo and Chrisman (2006), "are formed as a result of the combination of the following: 1) economic crisis and lack of individual opportunity; 2) processes of social disintegration; 3) social alienation of a community from mainstream society; 4) environmental degradation; 5) postwar reconstruction; and 6) volatility of large businesses" (p. 316).

Product of incremental learning. Communities that previously perform collective political actions are known to produce CBEs (Peredo, 2005, as cited in Peredo \& Chrisman, 2006), which may "result in the development of tacit knowledge with regard to organizing to achieve goals" (Spender, 1994, as cited in Peredo \& Chrisman, 2006). Furthermore, Peredo and Chrisman (2006) concluded that tacit knowledge benefits the communities that seek to put up CBEs.

Dependent on social capital. CBEs emerge from communities that lack significant material resources like land and access to capital markets. In these communities, members "depend on social relations or social capital to address their needs" (Peredo \& Chrisman, 2006, p. 317). Hence, "CBEs are created according to collectively owned cultural, social, and ethnic endowments" (Peredo \& Chrisman, 2006, p. 317). Community networks enable the 1) pooling of resources, 2) coordination of actions, and 3) creation of safety nets that reduce risks for community members.

Community size. As with any entrepreneurial venture, the startup and success of a CBE require that the community possesses sufficient resources to launch the enterprise. Peredo and Chrisman (2006) found that poor communities are at a disadvantage when it comes to forming CBEs since they have limited resources on a per capita basis. Thus, the larger communities possess an advantage in the creation of CBEs relative to smaller communities.

Community skills and experience. The skills and experiences of the members of the community influence the type of economic activity that CBEs adopt.

## Advantages and Disadvantages of CBEs

Torri (2009) emphasized that sustainable local development can be attained using CBEs as a strategy. First, the conventional processes of entrepreneurship and economic development do not seem to attract investments in depressed areas. Thus, CBE-as an approach to entrepreneurship that takes into account the disparities in resources, infrastructure, culture, and values-
could be considered by policymakers and practitioners as tools for local development and sustainability (Gui, 2000, as cited in Torri, 2009).

Secondly, the importance of community exercising entrepreneurship has been widely discussed in the literature (Walzer, 2004; Wilson, Fesenmaier, Fesenmaier, \& Van Es, 2001; Henton, Melville, \& Wallesh, 1997; Johannisson \& Nilsson, 1989). Entrepreneurs are known to significantly impact local economies through the creation of jobs and linkages to the global economy (Henderson, 2002).

Lastly, Torri (2009) cited Dasgupta (2000) in her findings that "community-based organizations that adopt multilayered network structure produces a diversity of stakeholders result in comparative advantage as it enhances the capacity of grassroots organizations for collective action, as well as the sustainability and ability to grow through local development efforts" (p. 426).

## Conceptual Framework

This research is an exploratory study which tested Peredo and Chrisman's community-based entrepreneurship (CBE) model. This research applied the following conditions for community-based entrepreneurs to emerge: 1) socioeconomic stressors, 2) a community size that complements the amount of its physical and financial resources, 3) skills and experience of its members, 4) availability of social capital or community participation in solving community issues through membership in organizations, and 5) participation in programs that generate incremental learning (refer to Fig. 1).

In this research, mean scores were computed for all conditions for community-based entrepreneurs to exist to yield the CBE index. The higher the CBE index, the higher the ability to form CBEs in the chosen municipality, city, and province. Furthermore, the conditions for CBEs to exist in each municipality, city, and province were grouped according to the ability to form CBEs in terms of socioeconomic stressors experienced, available skills, experience of community members, availability of social capital, and incremental learning. The resulting cluster characteristics for each municipality, city, and province were labeled to describe their present conditions. These characteristics helped determine whether communities have the ability and propensity to form CBEs.

As regards the effects of CBEs, the relationship between CBE and the behavior of individuals and other communities were tested using causal research design. Greater levels of CBE were assumed to positively influence individual perceptions of feasibility and social desirability of starting a
business. Thus, the relationship between individual entrepreneurship and community entrepreneurship was established as discussed below.

The effects of CBEs, as emphasized in Peredo and Chrisman (2006), are manifested through individual entrepreneurship and transmissibility of CBEs to other communities. The CBE model works "when a community takes a collective initiative to create new business ventures that will result in achieving or regaining an acceptable equilibrium living conditions" (Peredo \& Chrisman, 2006, p. 322). "CBEs also work if local natural resources, cultural, and social assets are harnessed to improve the living conditions of the community"(Peredo \& Chrsiman, 2006, p. 322).


Figure 1. CBE as catalyst to individual entrepreneurship as adapted from Peredo and Chrisman (2006).

## Operational Definition of Terms and CBMS Data Source per Variable

Peredo and Chrisman's (2006) CBE model is tested using CBMS data on conditions for CBEs to exist in communities.

## Social/Economic Stress

CBEs attempt to solve the socioeconomic problems of communities. CBMS data were used to determine the social and economic stress level of a specific municipality, city, and province-which may encourage the formation of CBEs.

Section G, Katangiang Pangkabuhayan (source of livelihood)questions 23, 26, and 27-pertained to the respondent and his relatives' employment status, condition of employment, and type of work. Questions 28 to 33 provided information on unemployment, length of unemployment, and measures taken to find a job.

Section J, Mga Kasambahay na Nag-Iisang Magulang (single parenthood)—questions 45 to 48-gave information on single parenthood.

Section I, Mga Kasambahay na May Kapansanan (relatives with disability)—questions 48 to 53-provided data on physically challenged household members who cannot contribute to livelihood.

## Community Size

According to Peredo and Chrisman (2006), community size is significant in creating CBEs. Section B, Demograpiya (demographics), questions supplied information on household size in a community. Population sizes by municipality, city, and province were obtained from the Office of the President Philippines National Anti-Poverty Commission (n.d.).

## Availability of Resources

CBMS questionnaire sections $\mathrm{H}, \mathrm{I}$, and J gave information on respondents with OFW relatives, single parents, handicapped relatives, and senior citizens to determine income sources and the number of dependents. Questions 75 to 85 supplied data on living conditions and available space and amenities for potential livelihood projects. Section P of the questionnaire presented information on household income sources to determine capacity to sustain livelihood projects.

## Availability of Social Capital

This information, according to Peredo and Chrisman (2006), pertained to the respondents' social relations among community members, cohesiveness, and receptiveness to collective action. Section E, Samahang Kinaaaniban (community organization membership)—questions 18 to 19—offered data on community organizations, associations, or clubs.

## Incremental Learning

Availment of and attendance in programs and trainings of community members "result in the development of tacit knowledge in developing organizing skills to achieve community goals" (Peredo \& Chrisman, 2006, p. 317). Questions 140 to 143 determined the type, source, and effects of livelihood, credit, and other programs.

## Available Community Skills and Experiences

The skills and experiences of the members of the community influence
the type of economic activity adopted by CBEs. These skills are based on collective ancestral knowledge; "some are developed through the experiences of individuals [working] outside the community" (Peredo \& Chrisman, 2006, p. 319). Questions 23 to 33 gathered information on employment experience and technical skills, while question 134 gathered the income status of skilled but poor community members.

## Community-Based Entrepreneurship Index

The ability of the municipality, city, or province to form CBEs is based on the mean scores computed for all conditions for CBEs to exist divided by the total number of variables/conditions for CBEs to exist-the higher the score, the higher the ability to form CBEs. In addition, mean scores of CBE conditions possessed by each municipality, city, and province were correlated with the type of entrepreneurial activity to determine the entrepreneurial activity that exhibits significant association with CBE conditions.

## Methodology

## Research Design

CBMS data was used for this exploratory research. CBMS is "one of the tools developed in the early 1990s to provide policymakers and program implementers with a [database] for tracking the impacts of macroeconomic reforms" (Office of the President Philippines National Anti-Poverty Commission, n.d.). Collected at the local level, the information is helpful to all levels of government units and various types of domestic and foreign nongovernment organizations as inputs to planning, program implementation, and monitoring.

## Sampling and Respondents

Included in this study are the first-class province of Batangas (Region 4), first-class city of Pasay (National Capital Region), first-class municipality of Carmona (Region 3), and fifth-class municipality of Malimono (Region 13). They were selected based on their income classification as province, city, and municipality, respectively. Their profiles were gathered from their respective websites.

Municipality of Carmona. Carmona is located on the southeastern part of the province of Cavite with a total land area of $30.92 \mathrm{~km}^{2}$. Carmona, with

14 barangays, represented $2.17 \%$ of the total land area of the province ("The Official Website of Carmona, Cavite, Philippines," 2009).

Carmona had a total population of 78,852 or 14,885 households in 2010 ("The Official Website of Carmona, Cavite, Philippines," 2009). Most population catalysts-such as banks, town centers, and commercial establishments-were found in the Poblacion area.

Municipality of Malimono. According to "Wow Surigao Philippines" (2015), "the municipality is located in the southwest part of the province of Surigao del Norte and 32 kilometers from Surigao City." Malimono has a total land area of 8,120 hectares, a population of 14,597 people in 2,817 households, and 14 barangays.

Pasay City. In terms of area, "Pasay City is the third smallest political subdivision in the National Capital Region. Pasay City has a total land area of 18.50 square kilometers of which 5.5050 square kilometer is the City proper. Among the local governments in the National Capital Region, Pasay has the largest area devoted to utilities covering $51.35 \%$ of its total land area. Pasay is composed of seven districts, divided into 20 zones, with a total of 200 barangays" ("City of Pasay," 2010-2015).

Batangas Province. Batangas "is located on the southwestern part of Luzon in the CALABARZON region. Batangas is a combination of plains and mountains, including the world's smallest volcano, Mt. Taal, with an elevation of 600 meters. Batangas also has many islands, including Tingloy, Verde Island (Isla Verde), and Fortune Island of Nasugbu" ("Batangas All Here. So Near," 2015).

## Data Analysis

The CBMS data were employed for descriptive analysis, cross-tabulation correlation analysis. Descriptive statistics through the skewness index was used to test for the normality of respondent distribution in terms of their demographic profile. The skewness index range of -3 to +3 was used to establish the normality of distribution of the respondents' age, gender, civil status, and religion.

## Descriptive Analysis

Two survey data sets were provided by the CBMS office, which included each household member's profile. The second data set included information on residence or location, available resources, information on relatives abroad, and total household income. Please refer to the tables in the Appendix for the quantitative analysis results.

Both the Carmona and Malimono municipalities' data sets are normally distributed in terms of gender, age, and civil status. Likewise, except for religion, the household members' figures are normally distributed for all the sample areas. As most of the Carmona and Pasay City household members were Catholic, religion is positively skewed (refer to Table 1).

Descriptive analysis was also done for the conditions for CBE to exist to provide a general picture of each of the sample area's situation.

Socioeconomic stress. CBEs emerge as a means by which communities can solve socioeconomic problems such as unemployment, single parenthood, physically challenged community members, and senior citizens or elderly members.

Batangas, Carmona, Malimono, and Pasay City have mean and mode scores of 2 indicating that, on the average, households had a single parent at home. In terms of household members with physical disability/handicap or elderly, respondents in all sample areas 1) did not indicate the presence of disabled members, 2) at most had one household member who is handicapped, and 3) on average had zero to one member who is more than 60 years old.

For household members seeking medical attention, 1) Carmona, on average, had one household member; 2) Malimono's and Batangas's household members, on average, had none; and 3) Pasay had no data. As regards to death in the family, all areas under study-except for Batangas (indicated at least one death in the family)-reported no deaths during the survey period (refer to Table 2).

Unemployment was the main household economic stressor in Pasay and Batangas with the highest rates at $23.5 \%$ and $28 \%$, respectively. Pasay household members were mostly employed as permanent workers (90.4\%). Malimono, Batangas, and Carmona reported that more than $20 \%$ of their employed workers were on short-term contract (refer to Table 3).

Roughly $90 \%$ of all unemployed household members did not look for work. When asked if they are willing to work, majority did not express interest since they had to take care of children, the elderly, or attend school (refer to Table 4).

Community size and availability of resources. Population levels for the areas under study are indicated in Table 5. Survey results revealed that all the areas covered by this study had, on average, three members per household ("Philippine Statistics Authority," 2012).

Availability of physical and financial resources is relevant in forming CBEs (refer to Table 6). Survey results indicated that both Malimono and Pasay had community-shared and owned water facilities. Carmona had a deep well shared with the community, and Batangas had deep wells owned
by the households. Toilet facilities used for all areas were water-sealed septic tanks.

In terms of physical resources, all areas under study had 1) an average tenure of three to four years in their residences with walls and roofs made from strong materials with the exception of Malimono, where households were using light materials for their houses, 2) electricity connected to electric companies or cooperatives, and 3) majority of households in Malimono and Pasay did not own appliances nor communication gadgets. Carmona households were equipped with basic appliances and cellular phones. Batangas had no data on household equipment and appliances.

The entrepreneurial activity that provided income for Malimono households was crop farming. Carmona, Pasay, and Batangas households derived income from wholesale and retail trade activities. Pasay City had the highest average salaries, followed by Carmona and Batangas. Malimono had the lowest wage at PHP 10,853 per month (refer to Table 7).

Availability of social capital. CBE is rooted in networking with people through organizations to form social enterprises. Survey results indicated that 1) on average, household members for all areas in this study did not join organizations; 2) a few belonged to civic organizations in Malimono; 3) Carmona residents mostly joined women's organizations; and 4) senior citizen organizations were preferred in Pasay City and Batangas (refer to Table 8).

Incremental learning. Household members in all the areas under study, on average, did not take advantage of programs implemented by the government and private organizations. The frequently availed programs for those who did were 1) credit programs in Malimono and Carmona, 2) credit and health assistance programs in Pasay, and 3) health assistance and supplemental feeding programs in Batangas. Skills and livelihood programs were seldom attended by the household members (refer to Table 9).

Availability of community skills and experience. Majority of those surveyed in Malimono, Carmona, and Pasay did not attend school. School attendees at the time of the survey were enrolled in the 4th grade, 3rd grade, and preparatory or kindergarten, respectively. Most of them attended private schools. The highest educational attainment for Malimono respondents was grade 6. Carmona and Pasay City respondents were predominantly high school graduates (refer to Table 10).

On average, respondents from Malimono and Batangas were farmers, forestry workers, and fisherfolk. Carmona respondents were mostly traders. Pasay City workers were generally employed as service, shop, and market workers. Except for Malimono, respondents from Carmona, Pasay, and Batangas were employed in private establishments. Malimono's respondents mostly worked for households (refer to Table 11).

Malimono's respondents had the highest share in engagement in all entrepreneurial activities-except for community, social and personal services, and transportation, storage, and communication where Carmona got the greatest share to total (refer to Table 11).

## Correlational Analysis of Demographic Variables by Program Type Availment

Using Pearson correlation, the demographic variables' association with program type, availment, and effect ratings were obtained to determine the type of programs that would be beneficial and significant to various demographics. Cross-tabulation by type, impact, and sources of livelihood, training, and credit programs by demographic variables was undertaken to determine the direction and significant relationships that occur between the demographic variables and the conditions for CBEs to exist. The significant results are discussed below.

Results for Malimono indicate that 1) male respondents signed up for housing and credit programs, 2) female respondents joined health assistance and supplementary feeding programs, and 3) older respondents did not participate in programs initiated by the government or private sector.

For Carmona respondents, 1) unmarried respondents did not participate in programs sponsored by the government or private organizations, and 2) married, widow/er, divorced, and live-in partners availed of these programs.

For all areas under study, religion and educational attainment had no significant association with program type, availment, and effects (refer to Table 12).

## Correlational Analysis for CBEs to Exist

Using Pearson correlation, the association between conditions for CBEs to exist and entrepreneurial activities was obtained to determine the type of entrepreneurial activities that are significant for various conditions for CBEs to exist. The correlation between these variables was undertaken to determine the direction and significant relationships that occur between the entrepreneurial activities and the conditions for CBEs to exist. Selected results are discussed in the subsequent section.

Carmona. Gender is significantly and positively associated with engagement in transportation, storage, and communication (TSC), construction (CON), crop farming and gardening (CFG), and forestry (FOR). Males were, thus, engaged in these activities more than females. Female respondents were more involved in community, social, and personal services (CSPS) relative to males.

In terms of age, civil status, and religion, 1) older respondents were engaged in manufacturing (MFG), CSPS, TSC, CON, CFG, livestock and poultry (LP), FOR, and wholesale and retail (WR); 2) single or unmarried respondents were engaged in CSPS and LP but not in MFG and CON; 3) Catholics were engaged in construction; and 4) non-Catholics were into WR activities.

For educational attainment, 1) respondents in MFG, TSC, CON, CFG, LP, FOR, and WR had less education; 2) noneducated respondents were in CFG, LP, and fishery (FSH); 3) board passers were in CSPS; and 4) nonboard passers were into MFG, TSC, and CON.

Employed respondents were engaged in entrepreneurial activities belonging to TSC, CON, CFG, FOR, and WR. Seasonal employees were engaged in MFG, CON, and CFG, while permanent workers were in TSC, FOR, and WR. Those who did not look for work in the past three months did not find opportunity to work since they believed that no work was available and they were not willing to work in TSC activities (refer to Table 13).

Malimono. Table 14 shows that a significant and positive correlation exists between gender and entrepreneurial activities for Malimono respondents who were engaged in CFG, LP, FSH, FOR, TSC, mining and quarrying (MQ), and CON-indicating that male respondents were engaged in these activities, while females were engaged in WR and MFG. Older respondents were engaged in CFG and MFG, whereas younger respondents were into FSH, TSC, MQ, and CON. Married respondents were in MQ, while those who were single took on CFG and WR. Catholic respondents were in FSH, while non-Catholics were in CSPS and MQ.

Malimono respondents engaged in any entrepreneurial activities were not members of any indigenous people (IP) group or any community organizations. Malimono respondents who had higher educational attainments were engaged in WR and TSC, whereas those undertaking CFG, LP, FSH, FOR, and MQ had less education. Respondents in CFG, FSH, FOR, MQ, and CON were not board passers, while WR and TSC workers were board passers.

Respondents engaged in CSPS, MQ, and CON activities were seasonal or temporary workers. Results also indicated that respondents involved in FSH and TSC activities were looking for and willing to work in these sectors.

Pasay. Table 15 indicates that females were engaged in fishery, while older respondents were engaged in maintenance services. Married respondents were involved in TSC activities. Those engaged in LP were members of religious groups, whereas those in entertainment services (ES) and CSPS were members of indigenous people groups.

Pasay respondents 1) were engaged in WR and not willing to work; 2) had single parents, disabled members, and death in the family; and 3)
experienced food shortage in the last three months. Those engaged in MS and CON were not looking for jobs, but those engaged in ES were willing to work.

All entrepreneurial activities have significant positive relationships with the number of household members receiving wages, indicating that income did not only come from the entrepreneurial activities but also from employment.

Batangas. Batangas respondents engaged in FSH were older and married household members, while younger respondents were undertaking LP, MFG, and services (SV) activities.

Respondents who were board passers are engaged in FSH and FOR, whereas non-board passers were in LP, MFG, and SVS. Respondents engaged in LP, FSH, and FOR were not employed. The occupation of those engaged in CFG, FSH, SVS, and TSC were nonmanagerial in nature, while those engaged in MQ were government officials and managers. Employed respondents engaged in CFG, LP, and FSH generally worked for agriculture, forestry, and fishery sectors.

Unemployed Batangas respondents engaged in FSH were looking for jobs through registration with public and private employment agencies. Those engaged in construction did not look for jobs since they believed that there was no job opportunity and they were not willing to work in the future (refer to Table 16).

## Correlational Analysis by Program Type and Availment

Participation in programs is significantly associated with cash and in kind incomes generated from entrepreneurial activities for Malimono and Batangas. The results indicate that 1) for Malimono, participation in programs would increase income from crop farming. Popular programs for Malimono were housing and credit programs. And 2) for Batangas, income from activities performed to earn a living is lower with participation in programs (refer to Table 17).

## Conclusions

This study considered whether individual entrepreneurship should be encouraged over CBEs to generate jobs, income, and economic value added. It assessed the suitability of community-based entrepreneurship for specific communities to reduce poverty given the socioeconomic stress experienced in the areas under study.

Based on the weighted average scores of the conditions for CBE to exist, unemployment and lack of opportunity to work are the major stressors for the sample areas. Overall, the results of the research revealed that Batangas and Carmona are more predisposed to be engaged in entrepreneurial activities.

In relation to community size, Carmona had the largest number of members per household but had the lowest income from entrepreneurial activities. Pasay had the highest monthly income from wages per household and the greatest income earned from entrepreneurial activities.

With respect to social capital, all areas under this study revealed little to no membership in organizations. Neither did respondents take advantage of programs implemented by the government and private organizations. Concerning the availability of skills and experience, all respondents were literate, with Carmona and Pasay having the highest educational attainment (refer to Table 18).

The municipalities, city, and province under study had little to no available social capital and incremental learning from programs implemented by either the government or privates sector. Nevertheless, all areas under study had 1) adequate literacy and educational attainment and work experience and 2) little to no engagement in entrepreneurial activities, except for Malimono, which had engagement in crop farming, fishery, and forestry.

Finally, the overall ranking of conditions for CBE to exist in Table 19 shows that Carmona has the most suitable conditions for CBE to exist with the 1) largest community size and available financial resources from wages and 2) least available financial resource from entrepreneurial activities.

Pasay has the least suitable conditions for CBE to exist with the lowest community size and largest availability of social capital and incremental learning. Pasay is the least qualified for CBE to exist since it has the highest available financial resources from entrepreneurial activities and work experience.

## Policy Implications

North and Smallbone (2006) emphasized that local government units or levels should formulate policies needed to develop the regional entrepreneurial capacity either through community-based entrepreneurship or individual entrepreneurship. However, according to the authors, these policies are meant to improve the "competitiveness of existing enterprises," rather than developing the "entrepreneurial capacity of rural regions in starting businesses" (North \& Smallbone, 2006, p. 59). Thus, this research looked into the possible avenues for entrepreneurship in impoverished localities.

## Promoting a Holistic Approach to Entrepreneurial Activity

According to Solow (2000) and Dia (1996) (as cited in Torri, 2009), the variations in the needs of local businesses should be the focus of CBEs to harness the potential for constructive local development to induce exchanges of resources among members. Thus, capacity building efforts that aim to promote local enterprises must focus on strengthening the existing capabilities of communities that are beset with social stressors.

## Developing Infrastructure to Support CBEs

Policy making at the regional level is vital in developing regional infrastructures (North \& Smallbone, 2006). As a critical support system for rural entrepreneurial activities, however, they must be complemented with private-sector business services that can fulfill the requirements of ruralsector entrepreneurs.

Investment in education and training systems is a "prerequisite to increase the number of people receiving secondary and tertiary level education as well as to encourage more business owners to serve as trainors is crucial" (North \& Smallbone, 2006, p. 56). Business owners, as recommended by North and Smallbone (2006), should act as "trainors to focus on raising marketing skills, the ability to prepare business plans, financial management, and the quality of innovation management" (p. 56). Skills development should focus on (North \& Smallbone, 2006) 1) the introduction of entrepreneurship modules in professional training courses, 2) increased entrepreneurship promotion and training in communities with "low population density and weak entrepreneurial culture" or spirit (p. 57), 3) "greater flexibility in the eligibility criteria for training [programs] orientated towards selfemployment" (p.57), and 4) the development of regional and subregional coordination mechanisms of training supply to prevent duplication (p. 57).

Available and sustainable physical and social infrastructure. Physical and social infrastructure improvements (i.e., market institutions, banking systems, etc.)-complemented with enhanced self-governance-are essential to successfully build entrepreneurial capacity in rural areas (North \& Smallbone, 2006).

Moreover, the formation of medium-size urban centers with the necessary physical and social infrastructure (i.e., roads, health facilities, etc.) is assumed to reduce internal migration rates, with the young people leaving the community for better work opportunities (North \& Smallbone, 2006). These young people are expected "to contribute to developing the entrepreneurial capacity of these peripheral rural regions" (North \& Smallbone, 2006. p. 57).

Overcoming innovation and enterprise development barriers. Businesses in the rural areas encounter factors that hinder innovation, which they attribute to inherent rural business environment characteristics. Hence, North and Smallbone (2006) suggested that "initiatives that help firms enter nonlocal markets (i.e., external assistance with market, adoption of new marketing techniques, etc.) are key to overcoming these constraints" (pp. 57-58).

North and Smallbone (2006) also mentioned other relevant policies should be formulated to encourage "rural entrepreneurs to participate in information and knowledge networks" (p. 58). According to OECD website (2003) (as cited in North \& Smallbone, 2006), "those entrepreneurs who engage in networks to gain venue for exchanging knowledge, ideas, etc. with other entrepreneurs outperform those who do not, particularly for those originating from rural areas that did not have a strong entrepreneurial tradition" (p. 58).

In summary, this research, similar with North and Smallbone (2006), is advocating for a more strategic and coordinated approach in building the entrepreneurial capacity of rural areas-through CBEs-as well as the implementation of the courses of action required to achieve this goal.

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## Appendix: Tables

Table 1. Household Members' Profiles

|  | Sex | Age | Civil Status | Religion |
| :---: | :---: | :---: | :---: | :---: |
| Carmona |  |  |  |  |
| $N$ | 64,508 | 64,508 | 64,508 | 64,508 |
| Mean | 1.5055 | 25.1373 | 1.7201 | 1.2979 |
| Skewness | -0.0222 | 0.6605 | 1.94 | 3.825 |
| Malimono |  |  |  |  |
| $N$ | 15,791 | 15,791 | 15,790 | 15,790 |
| Mean | 1.4818 | 27.1962 | 1.7011 | 2.3538 |
| Skewness | 0.0729 | 0.6612 | 1.9913 | 0.9881 |
| Pasay |  |  |  |  |
| $N$ | 266,197 | 266,192 | 266,197 | 266,196 |
| Mean | 1.51 | 26.66 | 1.73 | 1.3 |
| Skewness | -0.0288 | 0.6035 | 1.8769 | 3.9711 |
| Batangas |  |  |  |  |
| $N$ | $1,570,674$ | $1,570,300$ | $1,570,486$ | n.a. |
| Mean | 1.5011 | 26.8543 | 1.6127 | n.a. |
| Skewness | -0.0011 | 0.7255 | 2.1446 | n.a. |

Table 2. Household Socioeconomic Stress

|  | Carmona |  |  | Malimono |  |  | Pasay |  |  | Batangas |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode |
| Single parents | 4,475 | 1.91 | 2 | 577 | 1.95 | 2 | 70,350 | 1.90 | 2 | 3,479 | 1.94 | 2 |
| No. of single <br> parents | 924 | 1.07 | 1 | 158 | 1.03 | 1 | 6,798 | 1.07 | 1 | 1,568 | 1.05 | 1 |
| Disabled | 4,475 | 1.97 | 2 | 577 | 1.94 | 2 | 70,350 | 1.99 | 2 | 3,479 | 1.97 | 2 |
| No. of <br> disabled <br> members | 346 | 1.05 | 1 | 174 | 1.03 | 1 | 918 | 1.03 | 1 | 1,245 | 1.06 | 1 |
| No. of elderly <br> members | 4,475 | 0.16 | 0 | 577 | 0.39 | 0 | 70,353 | 0.21 | 0 | 3,480 | 0.27 | 0 |
| Sought <br> medical help | 4,475 | 1.79 | 1 | 577 | 1.75 | 2 | n.a. | n.a. | n.a. | 3,479 | 1.82 | 2 |

Table 2 continued...

| Death in the <br> family | 4,475 | 1.99 | 2 |  | 1.97 | 2 | 70,351 | 1.99 | 2 | 1,003 | 1.03 | 1 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Job indicator | 4,475 | 1.56 | 2 | 577 | 1.65 | 1 | 70,355 | 1.53 | 2 | 3,483 | 1.63 | 1 |
| Job status | 4,403 | 1.32 | 1 | 570 | 1.28 | 1 | 63,534 | 1.12 | 1 | 3,385 | 1.32 | 1 |
| Job search | 4,403 | 7.81 | 4 | 570 | 4.04 | 1 | 63,534 | 9.93 | 7 | 3,385 | 7.09 | 2 |

Table 3. Household Socioeconomic Stress (Job Indicator)

|  | Job/Work Indicator |  | Total | Job Status |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yes | No |  | Permanent | Short- <br> Term, Seasonal, or Casual | Worked in Different Jobs |  |
| Malimono | 81.1\% | 18.9\% | 100.0\% | 68.1\% | 23.1\% | 8.6\% | 100.0\% |
| Carmona | 81.5\% | 18.5\% | 100.0\% | 74.9\% | 21.5\% | 3.5\% | 100.0\% |
| Pasay | 76.5\% | 23.5\% | 100.0\% | 90.4\% | 8.1\% | 1.6\% | 100.0\% |
| Batangas | 72.0\% | 28.0\% | 100.0\% | 71.0\% | 22.7\% | 6.3\% | 100.0\% |

Table 4. Household Socioeconomic Stress (Job Indicator)

|  | Find Job |  | Total | Work Opportunity |  | Total | Willing to Work? |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yes | No |  | Yes | No |  | Yes | No |  |
| Malimono | 3.9\% | 96.1\% | 100.0\% | 11.7\% | 88.3\% | 100.0\% | 12.4\% | 87.6\% | 100.0\% |
| Carmona | 7.9\% | 92.1\% | 100.0\% | 5.9\% | 94.1\% | 100.0\% | 6.1\% | 93.9\% | 100.0\% |
| Pasay | 11.7\% | 88.3\% | 100.0\% | 3.0\% | 97.0\% | 100.0\% | 2.9\% | 97.1\% | 100.0\% |
| Batangas | 7.7\% | 92.3\% | 100.0\% | 9.3\% | 90.7\% | 100.0\% | 9.6\% | 90.4\% | 100.0\% |

Table 5. Population and Number of Households

|  | Malimono | Carmona | Pasay | Batangas |
| :--- | :---: | :---: | :---: | :---: |
| Population (NSO, 2007) | 16,883 | 68,135 | 403,064 | $2,245,869$ |
| No. of respondents (survey) | 3,485 | 4,475 | 70,355 | 577 |
| Average number of household <br> members (survey) | 3.05 | 2.92 | 2.41 | 2.94 |

Source: NSO website, 2007. Retrieved from http://www.census.gov.ph/content/2010-census-population-and-housing-reveals-philippine-population-9234-million

Table 6. Available Physical Resources

|  | Malimono |  |  | Carmona |  |  | Pasay |  |  | Batangas |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode |
| Water facility | 577 | 1.65 | 1 | 4,475 | 4.20 | 4 | 70,353 | 4.01 | 1 | 3,479 | 3.39 | 3 |
| Water source | 577 | 1.28 | 1 | 4,229 | 1.67 | 1 | 49,181 | 1.37 | 1 | 3,372 | 1.45 | 1 |
| Toilet type | 577 | 2.04 | 1 | 4,475 | 1.22 | 1 | 70,351 | 1.49 | 1 | 3,479 | 1.49 | 1 |
| Tenure in residence | 577 | 2.82 | 4 | 4,475 | 2.44 | 2 | 70,352 | 2.63 | 2 | 3,479 | 2.29 | 1 |
| Wall_1 | 577 | 2.75 | 2 | 4,475 | 1.39 | 1 | 70,352 | 1.84 | 1 | 3,479 | 1.67 | 1 |
| Roof_1 | 577 | 2.39 | 2 | 4,475 | 1.67 | 1 | 70,352 | 2.33 | 1 | 3,479 | 1.48 | 1 |
| Electricity indicator | 577 | 1.16 | 1 | 4,475 | 1.10 | 1 | 70,353 | 1.02 | 1 | n.a. | n.a. | n.a. |

Table 7. Income Sources

|  | Malimono |  | Carmona |  | Pasay |  | Batangas |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | Mean | $N$ | Mean | $N$ | Mean | $N$ | Mean |
| Total entrepreneurial <br> activities (cash) | 577 | 30,054 | 4,475 | 27,203 | 70,350 | 40,266 | n.a. | 32,302 |
| Total entrepreneurial <br> activities (kind) | 577 | 10,114 | 4,475 | 61 | 70,350 | 39 | n.a. | 2,331 |
| No. of waged <br> members | 577 | 0 | 4,475 | 1 | 70,353 | 1 | n.a. | n.a. |
| Wages (cash) | 577 | 10,853 | 4,475 | 105,097 | 70,350 | 131,422 | 3,483 | 73,979 |
| Wages (kind) | 577 | 508 | 4,475 | 111 | 70,350 | 25 | n.a. | n.a. |

Table 8. Organization Memberships

|  | Malimono |  |  | Carmona |  |  | Pasay |  |  | Batangas |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode |
| Organization <br> membership <br> individual | 577 | 1.87 | 2 | 4,475 | 1.92 | 2 | 70,350 | 1.98 | 2 | 3,483 | 1.96 | 2 |
| Organizational <br> type | 324 | 5.05 | 8 | 2,107 | 7.10 | 5 | 3,458 | 8.53 | 10 | 1,729 | 7.06 | 10 |

Table 9. Program Types, Effects, and Implementors

|  | Malimono |  |  | Carmona |  |  | Pasay |  |  | Batangas |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode |
| Program type | 6,309 | 4.94 | 7 | 4,475 | 6.92 | 7 | 70,353 | 4.06 | 4 | 3,479 | 4.00 | 4 |
| Program indicator | 6,303 | 1.56 | 2 | 4,475 | 1.91 | 2 | 70,353 | 1.98 | 2 | 3,479 | 1.96 | 2 |
| Implementor | 2,762 | 1.59 | 1 | 1,025 | 3.10 | 3 | 198 | 3.67 | 3 | 2,310 | 3.23 | 3 |
| Effect rating | 2,762 | 1.01 | 1 | 1,025 | 1.09 | 1 | 198 | 1.27 | 1 | 2,310 |  | 1 |

Table 10. Education, Job, and Literacy

|  | Malimono |  |  | Carmona |  |  | Pasay |  |  | Batangas |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode | $N$ | Mean | Mode |
| Education <br> indicator | 577 | 1.72 | 2 | 4,475 | 1.77 | 2 | 70,355 | 1.79 | 2 | n.a. | n.a. | n.a. |
| Grade level | 493 | 15.74 | 14 | 3,364 | 16.13 | 13 | 35,443 | 17.31 | 2 | n.a. | n.a. | n.a. |
| School type | 493 | 1.02 | 1 | 3,364 | 1.16 | 1 | 35,443 | 1.18 | 1 | n.a. | n.a. | n.a. |
| Education <br> attainment | 577 | 18.37 | 16 | 4,475 | 20.02 | 25 | 70,355 | 23.64 | 25 | n.a. | n.a. | n.a. |
| literi_1 | 577 | 1.03 | 1 | 4,475 | 1.02 | 1 | 70,350 | 1.00 | 1 | n.a. | n.a. | n.a. |
| General <br> occupation | 570 | 6.38 | 6 | 4,403 | 6.60 | 7 | 63,534 | 5.84 | 5 | 3,385 | 6.35 | 6 |
| Work class | 570 | 1.57 | 1 | 4,403 | 2.48 | 2 | 63,534 | 2.45 | 2 | 3,385 | 2.56 | 2 |
| Board passers | 577 | 1.97 | 2 | 4,475 | 1.98 | 2 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |
| No. of board <br> passers | 121 | 1.21 | 1 | 397 | 1.18 | 1 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

Table 11. Engagement in Entrepreneurial Activities by Sex

|  |  | Malimono |  |  | Carmona |  |  | Pasay |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| Engaged in crop farming and gardening | Count | 1,661 | 284 | 1,945 | 236 | 35 | 271 | 61 | 23 | 84 |
|  | \% <br> Within total | 57.80 | 50.00 | 56.50 | 1.90 | 1.30 | 1.80 | 0.10 | 0.10 | 0.10 |
| Engaged in livestock/poultry | Count | 564 | 55 | 619 | 66 | 14 | 80 | 40 | 16 | 56 |
|  |  | 19.60 | 9.70 | 18.00 | 0.50 | 0.50 | 0.50 | 0.10 | 0.10 | 0.10 |

Table 11 continued...

| Engaged in fishing | Count | 1,246 | 85 | 1,331 | 3 | 1 | 4 | 24 | 14 | 38 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% Within total | 43.40 | 15.00 | 38.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.10 |
| Engaged in forestry | Count | 140 | 13 | 153 | 69 | 2 | 71 | 37 | 5 | 42 |
|  | \% Within total | n.a. | n.a. | 4.90 | 2.30 | 4.40 | 0.60 | 0.10 | 0.50 | 0.10 |
| Engaged in wholesale/retail | Count | 421 | 108 | 529 | 1,587 | 374 | 1,961 | 8,210 | 2,576 | 10,786 |
|  | \% Within total | 14.60 | 19.00 | 15.40 | 13.10 | 13.60 | 13.20 | 15.20 | 15.60 | 15.30 |
| Engaged in manufacturing | Count | 102 | 31 | 133 | 266 | 64 | 330 | 315 | 86 | 401 |
|  | \% Within total | 3.50 | 5.50 | 3.90 | 2.20 | 2.30 | 2.20 | 0.60 | 0.50 | 0.60 |
| Engaged in community, social, and personal services | Count | 42 | 10 | 52 | 311 | 93 | 404 | 384 | 130 | 514 |
|  | \% Within total | 1.50 | 1.80 | 1.50 | 2.60 | 3.40 | 2.70 | 0.70 | 0.80 | 0.70 |
| Engaged in transportation, storage, and communication | Count | 161 | 14 | 175 | 1,527 | 220 | 1,747 | 3,374 | 971 | 4,345 |
|  | \% Within total | 5.60 | 2.50 | 5.10 | 12.60 | 8.00 | 11.70 | 6.20 | 5.90 | 6.20 |
| Engaged in mining and quarrying | Count | 266 | 19 | 285 | 38 | 9 | 47 | 71 | 22 | 93 |
|  | $\%$ <br> Within total | 9.30 | 3.30 | 8.30 | 0.30 | 0.30 | 0.30 | 0.10 | 0.10 | 0.10 |
| Engaged in construction | Count | 275 | 24 | 299 | 571 | 89 | 660 | 792 | 224 | 1,016 |
|  | \% Within total | 9.60 | 4.20 | 8.70 | 4.70 | 3.20 | 4.40 | 1.50 | 1.40 | 1.40 |
| Other activities NEC | Count | 241 | 33 | 274 | 151 | 33 | 184 | 316 | 88 | 404 |
|  | \% <br> Within <br> total | 8.40 | 5.80 | 8.00 | 1.20 | 1.20 | 1.20 | 0.60 | 0.50 | 0.60 |

Table 12. Cross-Tabulation of Demographic Variables With Program Type and Availment

|  | Malimono |  | Carmona |  | Pasay |  | Batangas |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value | Approx. Sig. | Value | Approx. Sig. | Value | Approx. Sig. | Value | Approx. Sig. |
| Gender $\times$ program type | -0.041 | 0.015** | 0.001 | 0.932 | -0.005 | 0.203 | -0.005 | 0.203 |
| Gender $\times$ program availment | 0.001 | 0.945 | 0.012 | 0.146 | 0.005 | 0.148 | 0.005 | 0.148 |
| Gender $\times$ effect rating | -0.155 | 0.200 | 0.032 | 0.281 | n.a. | n.a. | n.a. | n.a. |
| Age $\times$ program type | 0.004 | 0.793 | 0.008 | 0.323 | -0.003 | 0.447 | -0.003 | 0.447 |
| Age $\times$ program availment | 0.066 | 0.000** | -0.006 | 0.491 | -0.001 | 0.850 | -0.001 | 0.850 |
| Age $\times$ effect rating | -0.123 | 0.309 | 0.020 | 0.506 | n.a. | n.a. | n.a. | n.a. |
| Civil status $\times$ program type | -0.009 | 0.578 | -0.012 | 0.128 | 0.005 | 0.230 | 0.005 | 0.230 |
| Civil status $\times$ program availment | -0.008 | 0.637 | -. 023 | 0.006** | -0.007 | 0.081 | -0.007 | 0.081 |
| Civil status $\times$ effect rating | 0.166 | 0.170 | -0.005 | 0.874 | n.a. | n.a. | n.a. | n.a. |
| Religion $\times$ program type | 0.016 | 0.336 | 0.016 | 0.058 | 0.006 | 0.129 | 0.006 | 0.129 |
| Religion $\times$ program availment | 0.011 | 0.520 | 0.005 | 0.527 | 0.006 | 0.088 | 0.006 | 0.088 |
| Religion $\times$ effect rating | 0.089 | 0.462 | -0.005 | 0.865 | n.a. | n.a. | n.a. | n.a. |
| Educational attainment $\times$ program type | -0.009 | 0.609 | n.a. | n.a. | 0.001 | 0.706 | 0.001 | 0.706 |
| Educational attainment $\times$ program availment | -0.005 | 0.787 | n.a. | n.a. | 0.003 | 0.473 | 0.003 | 0.473 |
| Educational attainment $\times$ effect rating | -0.139 | 0.251 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. |

*Significant at the 0.05 level.
${ }^{* *}$ Significant at the 0.01 level.

Table 13. Conditions for CBEs to Exist (Carmona)

|  | Engaged in |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Manufacturing | Services | Transportation | Mining/Quarrying | Construction | Crop Farming/Gardening | Livestock/Poultry | Fishing | Forestry | Wholesale/Retail | Other Activities NEC |
| Sex | 0.00 | -0.019 | 0.055 | 0.00 | 0.028 | 0.020 | 0.00 | 0.00 | 0.028 | -0.01 | 0.00 |
| Age in years | -0.018 | -0.046 | -0.046 | 0.00 | -0.019 | -0.062 | -0.036 | -0.01 | -0.022 | -0.081 | -0.01 |
| Civil status | -0.019 | 0.025 | 0.01 | 0.00 | -0.023- | -0.01 | 0.018 | -0.01 | -0.02 | 0.00 | -0.025 |
| Religion | 0.00 | 0.01 | 0.01 | -0.01 | 0.018 | -0.01 | 0.00 | -0.02 | 0.01 | -0.025 | -0.023- |
| IP indicator | 0.00 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.01 | 0.00 |
| Educational attainment code | 0.039 | 0.00 | 0.065 | 0.01 | 0.103 | 0.112 | 0.048 | 0.01 | 0.074 | 0.020 | 0.01 |
| Literacy indicator | -0.01 | 0.01 | 0.00 | 0.01 | 0.01 | -0.027 | -0.021 | -0.040 | 0.00 | 0.00 | -0.01 |
| Member of any community organization | 0.01 | 0.040 | 0.049 | 0.00 | -0.01 | 0.01 | 0.01 | -0.01 | -0.02 | 0.030 | -0.01 |
| Type of community organization | 0.067 | 0.055 | -0.094 | 0.00 | 0.00 | -0.03 | 0.02 | n.a. | 0.01 | 0.01 | 0.03 |
| Job/work indicator | 0.00 | 0.00 | 0.037 | 0.01 | 0.033 | 0.029 | 0.00 | 0.00 | 0.023 | 0.026 | 0.01 |
| Occupation general code | -0.01 | 0.024 | -0.103 | -0.02 | -0.090- | 0.00 | 0.00 | 0.01 | -0.01 | 0.00 | 0.00 |
| Sector code | 0.00 | -0.049 | -0.086 | -0.01 | 0.025 | 0.109 | -0.01 | 0.00 | 0.040 | -0.030 | -0.01 |
| Job status | -0.036 | 0.00 | 0.046 | 0.00 | -0.088 | -0.032 | 0.01 | 0.01 | 0.022 | 0.035 | -0.02 |
| Class of worker | -0.02 | -0.037 | -0.148 | -0.01 | 0.041 | -0.082 | -0.026 | -0.02 | -0.075 | -0.145 | -0.01 |
| Find job | -0.02 | -0.02 | -0.01 | -0.01 | -0.03 | 0.00 | -0.02 | -0.01 | -0.01 | 0.01 | 0.00 |
| Job search method | -0.07 | 0.02 | -0.10 | n.a. | -0.10 | 0.00 | n.a. | n.a. | n.a. | -0.10 | 0.08 |

Table 13 continued...

| Reasons for not looking for work | -0.02 | 0.02 | 0.00 | -0.02 | 0.03 | -0.02 | 0.00 | 0.00 | -0.02 | 0.056 | -0.01 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Last time they looked for work | -0.02 | 0.01 | -0.044 | -0.02 | 0.01 | 0.00 | 0.00 | -0.01 | -0.01 | 0.04 | 0.00 |
| Had opportunity for work? | -0.02 | 0.00 | -0.046 | -0.01 | -0.01 | -0.01 | 0.00 | 0.00 | -0.01 | 0.02 | -0.01 |
| Willing to take up work? | -0.02 | 0.00 | -0.048 | -0.01 | -0.01 | -0.01 | 0.00 | -0.01 | -0.01 | 0.02 | -0.01 |
| With expected family members | -0.01 | 0.00 | -0.01 | 0.00 | 0.00 | 0.019 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 |
| Board passer indicator | -0.018 | 0.054 | -0.020 | -0.01 | -0.024- | -0.01 | 0.020 | 0.00 | -0.01 | -0.02 | -0.01 |
| Number of board passers | -0.03 | -0.05 | 0.05 | n.a. | -0.07 | -0.01 | 0.01 | n.a. | n.a. | 0.05 | 0.03 |
| Received treatment/cure for sickness | 0.019 | 0.00 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | -0.047 | 0.01 | 0.01 |
| How many couples? | -0.01 | -0.01 | -0.128 | -0.016 | -0.075- | -0.029 | -0.01 | -0.01 | -0.022 | -0.043- | -0.01 |
| Any member who died? | 0.038 | 0.01 | 0.01 | -0.01 | 0.00 | 0.01 | 0.01 | 0.00 | -0.01 | 0.018 | -0.01 |
| How many deaths? | 0.03 | 0.02 | -0.11 | n.a. | 0.03 | 0.02 | 0.01 | n.a. | n.a. | 0.06 | 0.01 |
| Type of water facility | 0.00 | -0.018 | 0.02 | 0.00 | 0.01 | 0.037 | 0.01 | 0.00 | -0.02 | 0.00 | 0.00 |
| Type of toilet facility | -0.01 | -0.01 | 0.037 | 0.01 | -0.100- | -0.059 | 0.01 | 0.00 | -0.102 | 0.028 | -0.018 |
| Tenure status of house/lot | ${ }^{-0.041-}$ | 0.01 | 0.00 | -0.01 | -0.040- | -0.017 | -0.020 | -0.01 | -0.125 | 0.032 | 0.00 |
| Electricity indicator | -0.059 | 0.00 | 0.025 | 0.00 | -0.056- | ${ }^{-0.081-}$ | 0.00 | -0.01 | -0.081 | 0.01 | 0.00 |

Table 13 continued...

| Own radio/cassette | -0.041 ${ }^{-}$ | 0.018 | 0.00 | -0.01 | -0.043 | -0.02 | 0.021 | 0.00 | 0.00 | 0.025 | 0.01 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of expected family members | 0.00 | 0.06 | -0.01 | 0.02 | -0.03 | -0.162 | 0.03 | n.a. | 0.02 | 0.04 | 0.04 |
| OFW indicator | -0.024 | 0.00 | -0.040 | -0.01 | -0.042 | -0.018 | 0.01 | 0.00 | -0.018 | -0.01 | -0.01 |
| Number of OFWs | 0.03 | -0.06 | -0.01 | 0.01 | -0.02 | 0.00 | 0.03 | n.a. | n.a. | -0.02 | 0.00 |
| Single-parent indicator | 0.022 | 0.01 | -0.022 | 0.00 | -0.02 | 0.00 | 0.00 | 0.01 | -0.01 | 0.055- | 0.00 |
| Number of single parent | -0.03 | 0.05 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.05 | -0.03 |
| With members with disability | 0.01 | 0.01 | 0.00 | 0.030 | 0.02 | 0.020 | ${ }^{-0.01}$ | 0.00 | 0.00 | 0.030 | 0.01 |
| Number of members with disability | -0.02 | -0.02 | 0.04 | 0.02 | 0.01 | -0.02 | 0.01 | n.a. | 0.01 | -0.01 | 0.03 |
| Number of members 60 years old and above | -0.018 | -0.020 | 0.00 | 0.00 | 0.022 | -0.072 | -0.028 | 0.01 | 0.00 | -0.075 | -0.01 |
| Own electric fan | -0.061 ${ }^{-}$ | 0.018 | 0.038 | 0.01 | -0.064 | -0.076 | 0.00 | -0.01 | -0.065 | 0.031 | 0.00 |
| Own TV | -0.043- | 0.01 | 0.046 | 0.01 | -0.060 | -0.057 | 0.018 | 0.00 | -0.062- | 0.043 | 0.01 |
| Own <br> VHS/VCD/DVD <br> player | -0.034 | 0.01 | 0.026 | -0.02 | -0.076 | -0.049 | 0.02 | 0.01 | -0.035- | 0.045 | 0.00 |
| Own stereo/component | -0.019 | 0.032 | 0.00 | -0.01 | -0.074 | -0.043 | 0.01 | 0.00 | -0.034 | 0.058 | 0.00 |
| Own karaoke | -0.01 | 0.047 | 0.024 | 0.01 | -0.01 | -0.01 | 0.035 | -0.01 | -0.01 | 0.058 | 0.00 |
| Own refrigerator | -0.040- | 0.024 | 0.025 | 0.01 | -0.094 | -0.046 | 0.01 | 0.00 | -0.046 | 0.136 | 0.01 |

Table 13 continued...

| Own electric iron | -0.045 | 0.016 | 0.057 | -0.01 | -0.087 | -0.048 | 0.01 | 0.00 | -0.037 | 0.040 | 0.01 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Own LPG/gas stove/range | -0.057 | 0.01 | 0.040 | -0.01 | -0.100 | -0.055- | 0.00 | 0.00 | -0.056- | 0.053 | -0.01 |
| Own washing machine | -0.036 | 0.01 | 0.042 | 0.00 | -0.074 | -0.036- | 0.02 | 0.00 | -0.045 | 0.092 | 0.00 |
| Own microwave oven | -0.025 | $0.031-$ | -0.023 | 0.00 | -0.044 | -0.021 | 0.01 | -0.01 | -0.023- | 0.055 | 0.01 |
| Own computer | -0.030- | 0.028 | -0.030- | -0.01 | -0.060- | -0.029- | 0.01 | 0.00 | -0.030- | 0.030 | 0.00 |
| Own cellphone | -0.040- | 0.00 | 0.01 | -0.01 | -0.088- | -0.054- | -0.01 | 0.00 | -0.066- | 0.022 | 0.00 |
| Own Telephone | -0.01 | 0.042 | 0.00 | 0.00 | -0.024 | -0.01 | 0.01 | 0.00 | -0.02 | 0.035 | 0.01 |
| Own air conditioner | -0.021 | 0.029 | -0.036 | -0.01 | -0.044 | -0.028 | 0.00 | 0.00 | -0.021 | 0.037 | 0.01 |
| Own sewing machine | 0.076 | 0.047 | 0.01 | 0.00 | -0.020 | 0.01 | 0.035 | 0.02 | -0.01 | 0.040 | 0.020 |
| Own vehicles | -0.028 | $0.026-$ | $0.309-$ | $0.023-$ | -0.064- | -0.020 | 0.030 | 0.01 | -0.024 | 0.086 | 0.00 |
| Materials of walls | ${ }^{-0.079}$ | -0.024- | 0.01 | -0.01 | ${ }^{-0.077}$ | -0.024 | 0.00 | -0.01 | -0.01 | 0.00 | -0.02 |
| Materials of roof | -0.01 | 0.01 | 0.00 | -0.021 | -0.036- | 0.00 | 0.00 | -0.01 | -0.01 | 0.00 | 0.01 |

*Significant at the 0.05 level.
**Significant at the 0.01 level.

Table 14. Conditions for CBEs to Exist (Malimono)

|  | Engaged in Crop Farming and Gardening | Engaged in Livestock/Poultry | Engaged in <br> Fishing | Engaged in <br> Forestry | Engaged in Wholesale/Retail | Engaged in Manufacturing | Engaged in Community, Social, and Personal Services | Engaged in Transportation, Storage, and Communication | Engaged in Mining and Quarrying | Engaged in Construction | Other Activities NEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | 0.058 | 0.096 | 0.216 | 0.047 | -0.045 | -0.037 | -0.01 | 0.053 | 0.080 | 0.070 | 0.035 |
| Age | -0.178 | 0.02 | 0.178 | -0.01 | -0.01 | -0.063 | -0.01 | 0.100 | 0.112 | $0.111^{*}$ | 0.085 |
| Civil status | 0.042 | 0.02 | 0.00 | -0.02 | 0.062 | 0.00 | 0.00 | 0.00 | -0.051 | -0.01 | -0.074 |
| Religion | 0.02 | -0.03 | 0.064 | 0.02 | -0.01 | 0.01 | -0.042 | 0.02 | -0.121 ${ }^{-}$ | 0.02 | 0.00 |
| IP group | 0.14 | n.a. | -0.821 | n.a. | n.a. | -0.01 | 0.02 | 0.01 | -0.054 | -0.034 | -0.083 |
| Member community organization | 0.01 | 0.01 | -0.109 | 0.02 | 0.01 | 0.02 | 0.00 | -0.081 | 0.054 | 0.01 | 0.055 |
| Educational attainment | 0.159 | 0.043 | 0.126 | 0.065 | -0.095 | -0.01 | 0.00 | 0.02 | -0.01 | 0.00 | -0.049 |
| Literacy | 0.01 | 0.02 | 0.02 | 0.02 | 0.042 | -0.01 | 0.00 | 0.066 | -0.044 | -0.061 | -0.03 |
| Board passer | -0.091 | -0.02 | -0.124 | -0.046 | 0.034 | 0.03 | 0.02 | 0.041 | $0.071{ }^{-}$ | 0.066 | 0.02 |
| Job/work | 0.070 | 0.104 | 0.218 | 0.065 | 0.03 | -0.02 | -0.02 | -0.03 | -0.155 | -0.052 | 0.01 |
| Occupation | 0.042 | -0.01 | -0.02 | 0.01 | -0.01 | -0.044 | -0.093 | -0.241 | 0.081 ${ }^{-}$ | -0.01 | 0.074 |
| Sector code | 0.273 | 0.063 | 0.246 | 0.072 | -0.123 | 0.02 | -0.051 | 0.02 | -0.070 | -0.148 | 0.037 |
| Worker class | 0.01 | -0.01 | 0.085 | -0.038 | -0.113 | -0.03 | -0.03 | -0.01 | 0.089 | 0.01 | 0.051 |
| Had opportunity for work? | -0.05 | 0.00 | 0.183 | 0.06 | -0.02 | 0.04 | -0.02 | 0.098 | 0.05 | 0.04 | 0.02 |
| Willing to work? | -0.03 | 0.04 | 0.158 | 0.06 | 0.00 | -0.06 | -0.04 | 0.04 | 0.00 | -0.04 | -0.080 |
| With expected family members | 0.047 | 0.01 | -0.055 | 0.00 | 0.047 | 0.00 | 0.00 | -0.047 | -0.01 | -0.03 | -0.042 |

Table 14 continued...

| Number of <br> expected family <br> members | -0.02 | -0.106 | 0.00 | 0.01 | -0.04 | 0.053 | 0.00 | -0.02 | -0.03 | -0.02 | 0.00 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| single parent | 0.02 | 0.00 | -0.068 | 0.036 | 0.03 | -0.048 | 0.01 | 0.080 | 0.086 | 0.105 | 0.046 |
| Members with <br> disabilty | 0.02 | -0.01 | $-0.051-$ | 0.03 | -0.03 | 0.03 | 0.00 | 0.01 | 0.01 | -0.01 | 0.061 |
| Number of <br> members 60 <br> years old and | -0.138 | 0.03 | $0.161-$ | 0.00 | 0.035 | -0.01 | 0.00 | -0.01 | 0.03 | 0.00 | -0.037 |
| above |  |  |  |  |  |  |  |  |  |  |  |

Table 14 continued...

| Own refrigerator | -0.069 | 0.040 | -0.110- | -0.01 | 0.292 | -0.02 | -0.02 | 0.03 | -0.082 | -0.082 | -0.091- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Own electric fan | -0.078 | 0.02 | -0.099- | -0.02 | 0.160 | -0.01 | 0.01 | 0.065 | -0.073 | -0.067- | -0.089 |
| Own electric iron | -0.046- | 0.02 | -0.128 | -0.01 | 0.162 | -0.01 | 0.02 | 0.071 | $-0.072$ | -0.075- | -0.095 |
| Own LPG/gas stove/range | -0.077 | -0.02 | -0.134 | -0.03 | 0.140 | 0.00 | 0.00 | 0.067 | -0.078 | -0.082 | -0.071- |
| Own washing machine | -0.072 | -0.03 | -0.133 | -0.02 | 0.100 | -0.01 | 0.01 | 0.054 | -0.070 | -0.069 | -0.060- |
| Own microwave oven | -0.042 | -0.01 | -0.085- | -0.03 | 0.073 | -0.03 | -0.02 | 0.02 | -0.03 | -0.034 | -0.037 |
| Own computer | -0.03 | 0.00 | -0.074 | 0.01 | 0.059 | 0.01 | 0.03 | 0.03 | -0.03 | -0.03 | -0.02 |
| Own cellphone | -0.065- | 0.039 | ${ }^{-0.071-}$ | 0.00 | 0.165 | -0.01 | 0.041 | 0.085 | -0.03 | -0.02 | -0.059 |
| Own air conditioner | -0.02 | -0.035 | -0.082- | 0.01 | 0.058 | -0.01 | -0.01 | 0.01 | -0.039 | -0.040 | -0.037 |
| Own sewing machine | 0.01 | -0.01 | -0.069 | 0.01 | $0.101{ }^{-}$ | 0.066 | 0.01 | 0.040 | -0.03 | -0.03 | -0.039 |
| Own vehicles | -0.088- | 0.01 | -0.055- | -0.034 | 0.089 | 0.01 | -0.01 | 0.257 | -0.037 | -0.065- | -0.060- |
| Program indicator | -0.01 | 0.044 | 0.03 | -0.01 | -0.02 | 0.058 | 0.00 | -0.01 | -0.01 | -0.01 | -0.01 |
| Received Philhealth for indigents? | 0.067 | 0.134 | 0.050 | 0.03 | 0.03 | 0.01 | 0.02 | 0.00 | 0.119 | 0.055 | -0.03 |
| Household size | -0.090- | -0.089 | -0.123- | -0.060 | 0.01 | 0.00 | -0.03 | -0.03 | -0.051 - | -0.080- | -0.048 |
| How many couples? | -0.038 | -0.084 | -0.201- | -0.03 | -0.03 | 0.038 | 0.01 | -0.082 | -0.048 | -0.082 | -0.03 |
| Number of waged household members | 0.130 | 0.01 | 0.144 | 0.03 | -0.048 | 0.02 | -0.02 | -0.043 | 0.079 | 0.078 | 0.075 |

*Significant at the 0.05 level.
${ }^{* *}$ Significant at the 0.01 level.

Table 15A. Conditions for CBEs to Exist (Pasay)

|  | Engaged in Crop <br> Farming and <br> Gardening | Engaged in <br> Livestock/Poultry | Engaged <br> in Fishing | Engaged <br> in Forestry | Engaged in <br> Wholesale/Retail | Engaged in <br> Publishing | Engaged in <br> Manufacturing | Engaged in <br> Maintenance <br> Services |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | -0.003 | -0.003 | -0.007 | 0.007 | -0.005 | -0.002 | 0.003 | 0.003 |
| Age in years | 0.000 | 0.002 | 0.001 | 0.005 | 0.001 | 0.002 | 0.004 | -0.009 |
| Civil status | -0.002 | -0.004 | 0.004 | 0.005 | -0.004 | -0.004 | -0.002 | -0.004 |
| Religion | -0.001 | 0.001 | 0.005 | -0.004 | 0.001 | -0.003 | 0.001 | -0.003 |
| IP indicator | -0.001 | -0.001 | -0.001 | -0.001 | 0.000 | -0.001 | -0.002 | -0.002 |
| IP group | n.a. | n.a. | n.a. | n.a. | 0.091 | n.a. | n.a. | n.a. |
| Educational <br> attainment code | 0.002 | 0.000 | -0.005 | -0.001 | 0.006 | -0.001 | 0.004 | 0.006 |
| Literacy indicator | 0.001 | 0.001 | 0.001 | 0.001 | 0.003 | 0.002 | 0.003 | 0.004 |
| Member of any <br> community <br> organization | -0.005 | 0.002 | 0.002 | -0.002 | -0.006 | 0.003 | -0.001 | 0.002 |
| Type of community <br> organization | -0.001 | 0.071 | -0.002 | -0.009 | -0.014 | 0.017 | -0.023 | -0.002 |
| Skills indicator | 0.001 | 0.001 | 0.006 | -0.004 | -0.001 | -0.003 | 0.004 | -0.002 |
| Skills | 0.015 | 0.005 | -0.013 | n.a. | -0.009 | -0.013 | 0.008 | 0.009 |
| Job/work indicator | 0.001 | 0.001 | -0.002 | 0.009 | 0.005 | 0.003 | 0.009 | -0.002 |
| Occupation general <br> code | 0.004 | -0.005 | 0.008 | -0.001 | -0.003 | 0.003 | -0.005 | 0.006 |
| Sector code | 0.001 | 0.000 | 0.000 | 0.007 | 0.004 | -0.003 | 0.003 | -0.002 |
| Job status | 0.003 | 0.000 | -0.006 | 0.006 | -0.007 | 0.005 | -0.002 | -0.002 |
| Class of worker | -0.002 | -0.008 | -0.008 | -0.001 | -0.004 | -0.002 | -0.004 | -0.002 |
| Find job | 0.004 | 0.011 | -0.009 | -0.005 | 0.014 | 0.009 | -0.004 | -0.016 |
| Job search method | 0.043 | -0.027 | n.a. | n.a. | -0.003 | -0.021 | 0.030 | -0.013 |

Table 15A continued...

| Reasons for not <br> looking for work | 0.003 | -0.006 | -0.002 | -0.013 | 0.009 | -0.009 | -0.003 | 0.004 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Last time they <br> looked for work | 0.012 | -0.008 | 0.013 | -0.005 | 0.000 | -0.009 | -0.002 | 0.014 |
| Had opportunity for <br> work? | 0.006 | -0.004 | 0.011 | -0.003 | -0.015 | -0.008 | -0.006 | 0.004 |
| Willing to take up <br> work? | 0.007 | -0.004 | 0.011 | -0.002 | -0.019 | -0.007 | -0.012 | 0.005 |
| Program type | -0.001 | -0.008 | 0.002 | 0.005 | -0.001 | -0.001 | -0.001 | -0.002 |
| Program indicator | 0.011 | -0.003 | -0.003 | -0.003 | 0.000 | 0.003 | 0.000 | 0.000 |
| Kind of housing | -0.007 | -0.002 | -0.018 | 0.010 | 0.015 | -0.005 | 0.001 | -0.009 |
| With expected <br> family members | 0.001 | 0.003 | -0.002 | -0.002 | -0.002 | 0.002 | 0.001 | -0.005 |
| Number of <br> expected family <br> members | 0.014 | -0.198 | n.a. | n.a. | 0.013 | -0.055 | 0.029 | -0.036 |
| OFW indicator | 0.008 | 0.010 | -0.002 | -0.002 | -0.033 | -0.004 | -0.008 | -0.013 |
| Number of OFW | 0.001 | 0.012 | -0.022 | 0.006 | -0.012 | -0.003 | 0.017 | -0.016 |
| Single-parent <br> indicator | 0.000 | 0.001 | -0.001 | 0.002 | 0.055 | 0.006 | 0.005 | -0.008 |
| Number of single <br> parents | 0.009 | 0.008 | 0.005 | 0.007 | -0.031 | 0.015 | -0.013 | 0.010 |
| With members with <br> disability | 0.003 | 0.001 | -0.003 | -0.003 | 0.017 | 0.003 | 0.001 | 0.008 |
| Number of <br> members with <br> disability | 0.008 | 0.006 | n.a. | n.a. | -0.030 | 0.010 | -0.069 | -0.080 |
| Number of <br> members 60 years <br> old and above | -0.005 | -0.014 | -0.003 | -0.004 | -0.052 | -0.005 | -0.024 |  |

Table 15A continued...

| How many <br> couples? | 0.002 | -0.008 | -0.008 | -0.004 | -0.053 | -0.009 | -0.004 | -0.036 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Any member who <br> died? | -0.004 | -0.003 | -0.002 | -0.003 | 0.016 | 0.007 | 0.005 | 0.000 |
| Type of water <br> facility | -0.004 | -0.006 | 0.003 | 0.003 | 0.012 | -0.004 | 0.003 | -0.008 |
| Type of toilet <br> facility | 0.012 | 0.005 | -0.024 | 0.006 | -0.002 | 0.005 | 0.003 | 0.014 |
| Tenure status of <br> house/lot | -0.003 | -0.001 | -0.025 | 0.002 | 0.013 | 0.006 | 0.005 | 0.000 |
| Electricity indicator | 0.004 | 0.000 | -0.061 | -0.002 | -0.012 | 0.001 | 0.004 | 0.000 |
| Own other | -0.003 | -0.003 | -0.002 | -0.002 | -0.001 | 0.015 | 0.001 | 0.005 |
| Construction <br> materials of walls | 0.000 | 0.002 | -0.016 | 0.006 | -0.026 | 0.006 | 0.009 | -0.002 |
| Construction <br> materials of roof | 0.010 | 0.008 | -0.018 | 0.003 | -0.007 | 0.015 | 0.011 | 0.001 |
| Number of waged <br> household <br> members | 0.011 | 0.015 | 0.023 | 0.014 | 0.245 | 0.019 | 0.033 | 0.058 |
| Experienced food <br> shortage | -0.002 | -0.002 | 0.008 | 0.007 | 0.008 | 0.001 | -0.002 | 0.002 |
| Housing loan | -0.002 | -0.002 | -0.001 | -0.001 | -0.008 | -0.007 | 0.004 | 0.004 |
| Investment loan | 0.008 | 0.010 | 0.012 | 0.000 | 0.009 | 0.005 | 0.002 | 0.001 |
| Received Philhealth <br> for indigents? | -0.004 | -0.006 | -0.008 | -0.002 | -0.052 | -0.001 | -0.011 | -0.007 |

${ }^{*}$ Significant at the 0.05 level.

Table 15B Conditions for CBEs to exist (Pasay cont.)

|  | Engaged in Food Services | Engaged in Entertainment Services | Engaged in Community, Social, and Personal Services | Engaged in Computer Communication | Engaged in Transportation, Storage, and Communication | Engaged <br> in Mining and Quarrying | Engaged in Construction | Other Activities NEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex | -0.007 | 0.001 | -0.004 | 0.002 | 0.006 | 0.000 | 0.004 | 0.003 |
| Age in years | 0.000 | 0.003 | -0.001 | 0.001 | -0.002 | -0.002 | 0.003 | 0.000 |
| Civil status | -0.005 | 0.003 | -0.002 | -0.002 | -0.009* | -0.002 | 0.000 | 0.002 |
| Religion | 0.000 | -0.006 | -0.003 | 0.005 | 0.002 | -0.002 | 0.001 | -0.003 |
| IP indicator | -0.003 | $0.024 * *$ | $0.012{ }^{* *}$ | 0.006 | -0.001 | -0.001 | -0.003 | -0.002 |
| IP group | n.a. | 0.221 | -0.149 | -0.048 | $-0.375^{*}$ | n.a. | n.a. | n.a. |
| Educational attainment code | 0.001 | 0.001 | 0.001 | -0.003 | 0.002 | -0.002 | 0.006 | 0.004 |
| Literacy indicator | $-0.011^{* *}$ | 0.002 | 0.000 | -0.001 | 0.003 | 0.002 | 0.002 | -0.001 |
| Member of any community organization | -0.002 | 0.003 | -0.002 | 0.004 | -0.001 | -0.001 | -0.001 | -0.004 |
| Type of community organization | -0.007 | -0.029 | 0.017 | -0.004 | -0.006 | -0.015 | 0.015 | 0.019 |
| Skills indicator | -0.004 | -0.001 | 0.002 | 0.000 | 0.002 | -0.002 | $0.011^{* *}$ | -0.001 |
| Skills | -0.001 | -0.020 | 0.012 | -0.018 | 0.025 | 0.009 | $0.042^{*}$ | 0.029 |
| Job/work indicator | -0.005 | -0.002 | 0.006 | -0.003 | -0.002 | 0.002 | 0.007 | 0.003 |
| Occupation general code | 0.000 | 0.003 | -0.004 | -0.002 | 0.004 | 0.006 | -0.003 | -0.006 |
| Sector code | -0.001 | -0.002 | -0.001 | 0.006 | 0.006 | -0.003 | 0.001 | 0.007 |
| Job status | -0.003 | -0.002 | 0.000 | 0.000 | 0.003 | -0.008 | -0.005 | 0.001 |
| Class of worker | 0.000 | -0.010* | -0.005 | 0.004 | -0.005 | 0.003 | 0.002 | 0.006 |

Table 15B continued...

| Find job | -0.006 | -0.010 | -0.001 | 0.012 | -0.001 | -0.002 | $-0.022^{* *}$ | -0.009 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Job search <br> method | 0.017 | 0.002 | 0.005 | 0.021 | 0.001 | 0.002 | -0.013 | -0.015 |
| Reasons for not <br> looking for <br> work | -0.011 | 0.003 | -0.001 | -0.002 | -0.006 | 0.009 | $-0.018^{*}$ | -0.005 |
| Last time they <br> looked for work | 0.011 | $0.018^{*}$ | 0.002 | -0.003 | 0.002 | 0.005 | 0.004 | $0.021^{*}$ |
| Had <br> opportunity for <br> work? | 0.001 | 0.016 | 0.016 | -0.002 | -0.001 | 0.005 | 0.010 | -0.002 |
| Willing to take <br> up work? | 0.002 | $0.016^{*}$ | 0.007 | -0.002 | -0.002 | 0.006 | 0.008 | -0.002 |
| Program type | 0.003 | 0.003 | 0.000 | 0.000 | -0.001 | 0.000 | $-0.008^{*}$ | 0.000 |
| Program <br> indicator | 0.002 | 0.000 | -0.001 | 0.005 | -0.003 | 0.003 | -0.005 | 0.000 |
| Kind of housing | -0.001 | 0.003 | $-0.010^{*}$ | 0.007 | $0.030^{* *}$ | 0.004 | $-0.013^{* *}$ | -0.006 |
| With expected <br> family members | 0.005 | $0.012^{* *}$ | 0.003 | 0.006 | -0.006 | 0.005 | -0.002 | -0.003 |
| Number of <br> expected family <br> members | -0.016 | 0.032 | -0.008 | -0.008 | 0.016 | 0.020 | $-0.123^{* *}$ | 0.020 |
| OFW indicator | -0.005 | -0.002 | $-0.007^{*}$ | -0.001 | $-0.035^{* *}$ | -0.004 | $-0.019^{* *}$ | 0.005 |
| Number of <br> OFWs | -0.026 | 0.012 | -0.018 | -0.003 | -0.005 | 0.008 | 0.009 | $-0.054^{* *}$ |
| Single-parent <br> indicator | 0.006 | $0.008^{*}$ | $0.021^{* *}$ | 0.000 | $-0.017^{* *}$ | 0.001 | 0.000 | 0.006 |
| Number of <br> single parents | 0.016 | -0.015 | -0.006 | 0.019 | -0.005 | 0.010 | -0.017 | 0.008 |
| With members <br> with disability | -0.002 | -0.003 | 0.006 | -0.007 | -0.003 | -0.001 | $0.010^{* *}$ | 0.000 |
| Number of <br> members with <br> disability | 0.017 | 0.006 | 0.018 | 0.006 | 0.011 | 0.006 | -0.059 | 0.012 |

Table 15B continued...

| Number of members 60 years old and above | -0.010** | -0.005 | $-0.016^{* *}$ | -0.001 | 0.018** | -0.001 | -0.004 | $-0.012^{* *}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| How many couples? | -0.025** | -0.003 | 0.003 | -0.011** | -0.113** | -0.010* | -0.052** | -0.007 |
| Any member who died? | 0.001 | -0.005 | 0.010** | 0.003 | 0.001 | 0.000 | $0.011^{* *}$ | -0.001 |
| Type of water facility | 0.000 | -0.004 | -0.002 | -0.012** | $0.024^{* *}$ | 0.005 | $0.018 *$ | $-0.013^{* *}$ |
| Type of toilet facility | $0.020^{* *}$ | 0.006 | $0.016^{* *}$ | 0.018** | 0.003 | 0.002 | $-0.019^{* *}$ | 0.015** |
| Tenure status of house/lot | $0.014^{* *}$ | 0.008* | $0.010^{*}$ | 0.011** | $-0.022^{* *}$ | -0.004 | -0.036** | 0.015** |
| Electricity indicator | 0.006 | -0.001 | -0.004 | $0.008^{*}$ | $-0.013^{* *}$ | $-0.008^{*}$ | $-0.023^{* *}$ | -0.001 |
| Own other | $0.010^{*}$ | 0.009* | 0.005 | $0.014^{* *}$ | 0.006 | 0.009* | 0.003 | 0.005 |
| Construction materials of walls | $0.019^{* *}$ | 0.006 | 0.004 | 0.016** | $-0.028^{* *}$ | $-0.015^{* *}$ | -0.052** | 0.002 |
| Construction materials of roof | $0.020^{* *}$ | 0.007 | $0.009^{*}$ | $0.011^{* *}$ | $-0.024^{* *}$ | $-0.015^{* *}$ | $-0.011^{* *}$ | -0.002 |
| Number of waged household members | $0.050^{* *}$ | $0.025^{*}$ | $0.046^{* *}$ | $0.031^{* *}$ | $0.185^{* *}$ | $0.024^{* *}$ | $0.085^{* *}$ | $0.048^{* *}$ |
| Experienced food shortage | 0.003 | 0.006 | 0.007 | -0.005 | 0.004 | -0.002 | $0.012^{* *}$ | -0.002 |
| Housing loan | $-0.008^{*}$ | -0.002 | 0.002 | 0.004 | -0.006 | -0.002 | 0.000 | -0.002 |
| Investment loan | 0.003 | 0.005 | -0.002 | 0.002 | 0.001 | 0.007 | -0.002 | 0.006 |
| Received Philhealth for indigents? | -0.005 | 0.000 | -0.007 | 0.006 | $-0.031^{* *}$ | $-0.010^{*}$ | $-0.016^{* *}$ | -0.001 |

Table 16. Conditions for CBEs to Exist (Batangas)

|  | Income From Entrepreneurial Activities |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Batangas | Crop Farming | Poultry | Fishing | Forestry | Wholesale and Retail | Manufacturing | Services | Transportation | Mining | Construction | Others |
| Age in years | 0.00 | 0.005 | -0.019 | 0.00 | 0.00 | 0.003 | 0.005 | 0.00 | 0.00 | 0.00 | 0.00 |
| Civil status | 0.00 | -0.005 | $0.011^{\text {- }}$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Member of any community organization | -0.005 | -0.006 | 0.016 | 0.00 | -0.005 | 0.00 | -0.006 | -0.005 | 0.00 | -0.004 | 0.00 |
| Type of community organization | 0.00 | 0.010 | 0.00 | 0.010 | -0.01 | 0.00 | 0.00 | -0.010 | 0.01 | 0.00 | 0.00 |
| Job/work indicator | 0.00 | -0.008 | -0.017 | -0.006 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Occupation general code | -0.017 | 0.00 | -0.018 | 0.00 | 0.00 | 0.00 | -0.015 | -0.005 | 0.006 | 0.00 | -0.006 |
| Sector code | $-0.071^{\text {- }}$ | -0.018 | -0.050 | -0.012 | 0.004 | 0.007 | 0.018 | 0.00 | 0.00 | 0.00 | 0.010 |
| Job status | -0.011 ${ }^{\text {- }}$ | -0.005 | 0.009 | 0.00 | 0.00 | -0.004 | -0.006 | 0.00 | 0.007 | 0.00 | 0.00 |
| Class of worker | 0.022 | 0.008 | 0.018 | 0.00 | 0.00 | 0.004 | 0.006 | 0.00 | 0.00 | 0.00 | 0.00 |
| Find job | 0.00 | 0.01 | 0.008 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.020 | 0.00 |
| Job search method | 0.02 | 0.01 | 0.023 | 0.01 | -0.01 | 0.01 | -0.027 | 0.01 | 0.01 | 0.02 | 0.01 |
| Had opportunity for work? | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | $-0.011{ }^{-}$ | 0.00 |
| Willing to take up work? | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | -0.011 ${ }^{-}$ | 0.00 |
| With expected family members | 0.00 | -0.009 | 0.007 | 0.00 | 0.00 | 0.00 | 0.00 | -0.005 | 0.00 | 0.00 | 0.00 |
| Number of expected family members | 0.033 | 0.01 | -0.01 | 0.012 | -0.01 | 0.01 | 0.01 | 0.015 | 0.00 | 0.00 | 0.012 |
| OFW indicator | $-0.004$ | 0.00 | 0.026 | 0.009 - | 0.004 | 0.004 | 0.00 | 0.00 | 0.004 | 0.006 | 0.00 |
| Number of single parents | 0.00 | -0.01 | -0.01 | 0.00 | 0.014 | 0.01 | 0.024 | 0.00 | 0.01 | -0.01 | 0.01 |
| With members with disability | 0.00 | -0.004 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Number of members with disability | 0.00 | 0.019 | 0.00 | 0.00 | 0.00 | 0.00 | 0.020 | 0.01 | 0.00 | 0.00 | -0.01 |
| Number of members 60 years old and above | 0.00 | $0.011^{*}$ | -0.024 | -0.006 | 0.007 | 0.004 | 0.00 | 0.00 | 0.00 | -0.005 | 0.00 |
| Board passer indicator | 0.00 | -0.012 | 0.016 | 0.005 | 0.00 | -0.009 | -0.036 | 0.00 | 0.00 | 0.00 | -0.015- |
| Number of board passers | 0.00 | 0.00 | -0.01 | -0.01 | 0.01 | 0.00 | 0.040 | -0.020- | -0.01 | 0.020 | 0.01 |
| Received treatment/cure for sickness | 0.00 | -0.007 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| How many couples? | 0.00 | 0.018 | 0.034 | 0.008 | 0.010 | $0.011{ }^{*}$ | 0.00 | 0.00 | 0.009 | 0.008 | 0.007 |
| Any member who died? | 0.00 | 0.00 | 0.005 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Type of water facility | 0.00 | 0.006 | 0.038 | 0.016 | 0.00 | -0.005 | 0.008 | 0.004 | 0.00 | 0.00 | 0.00 |
| Type of toilet facility | 0.00 | -0.010 | 0.052 | 0.022 | -0.008 | -0.010 | -0.010 | 0.00 | 0.00 | 0.00 | -0.011 |
| Tenure status of house/lot | 0.00 | -0.014 | 0.029 | 0.007 | -0.008 | -0.011 | -0.010 | 0.00 | 0.00 | 0.00 | -0.011- |
| Received Philhealth for indigents? | 0.00 | 0.00 | -0.007 | 0.00 | 0.004 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.004 |

*Significant at the 0.05 level.
**Significant at the 0.01 level.

Table 17．Tabulation of Entrepreneurial Activity Income with Program Type and Availment

|  | Malimono |  | Carmona |  | Pasay |  | Batangas |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value | Approx．Sig． | Value | Approx．Sig． | Value | Approx．Sig． | Value | Approx．Sig． |
| Entrepreneurial cash income $\times$ program <br> type | 0.000 | 0.689 | -0.008 | 0.334 | -0.003 | 0.380 | 0.000 | 0.974 |
| Entrepreneurial cash income $\times$ program <br> availment | -0.003 | $0.000^{* *}$ | -0.011 | 0.176 | 0.002 | 0.663 | 0.007 | $0.000^{* *}$ |
| Entrepreneurial cash income $\times$ effect <br> rating | -0.003 | 0.397 | 0.003 | 0.926 | n．a． | n．a． | 0.007 | 0.402 |
| Entrepreneurial cash income $\times$ CARP | 0.009 | 0.587 | -0.006 | 0.477 | n．a． | n．a． | n．a． | n．a． |
| Entrepreneurial in－kind income $\times$ program <br> type | 0.000 | 0.577 | 0.004 | 0.621 | -0.002 | 0.509 | -0.003 | $0.046^{* *}$ |
| Entrepreneurial in－kind income $\times$ program <br> availment | -0.002 | $0.019^{* *}$ | -0.007 | 0.395 | 0.005 | 0.167 | 0.004 | $0.015^{* *}$ |
| Entrepreneurial in－kind income $\times$ effect <br> rating | -0.001 | 0.769 | -0.086 | $0.004^{* *}$ | n．a． | n．a． | -0.002 | 0.833 |
| Entrepreneurial in－kind income $\times$ CARP | 0.021 | 0.218 | 0.000 | 0.965 | n．a． | n．a． | n．a． | n．a． |

Table 18．Summary of Conditions for CBEs to Exist

| Conditions for CBE to Exist | Carmona Weighted Score |  | MalimonoWeighted Score |  | Pasay Weighted Score |  | Batangas Weighted Score |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | Mode | Mean | Mode | Mean | Mode | Mean | mode |
| Social economic stress区 | 1.76 | 1.58 | 2.83 | 1.75 | 1.71 | 1.70 | 1.62 | 1.61 |
| Community size（average number of household members）${ }^{2}$ | 3.05 | n．a． | 2.92 | n．a． | 2.41 | n．a． | 2.94 | n．a． |
| Available resources（physical resources）区 Available financial resources（income）区 －From entrepreneurial activities －From wages | $\begin{gathered} \hline 1.74 \\ 27,203 \\ 105,097 \\ \hline \end{gathered}$ | 1.37 | $\begin{gathered} \hline 1.94 \\ 30,054 \\ 10,853 \\ \hline \end{gathered}$ | 1.73 | $\begin{gathered} \hline 1.92 \\ 40,266 \\ 131,422 \\ \hline \end{gathered}$ | 1.07 | $\begin{gathered} \hline 1.68 \\ 32,302 \\ 73,979 \\ \hline \end{gathered}$ | 1.10 |
| Availability of social capital】 | 1.92 | 2.00 | 1.87 | 2.00 | 1.98 | 2.00 | 1.96 | 2.00 |
| Incremental learning区 | 1.46 | 1.50 | 1.29 | 1.50 | 1.63 | 1.50 | 1.53 | 1.50 |
| Available community skills and experience <br> - Literacy区 <br> - Educational attainment】 <br> - Work experience区 <br> - Engagement in entrepreneurial activities】 | $\begin{gathered} 1.59 \\ 18.08 \\ 1.32 \\ 1.96 \\ \hline \end{gathered}$ | $\begin{gathered} 1.67 \\ 19.00 \\ 1.00 \\ 2.00 \\ \hline \end{gathered}$ | $\begin{gathered} 1.57 \\ 17.06 \\ 1.28 \\ 1.84 \\ \hline \end{gathered}$ | $\begin{gathered} 1.67 \\ 15.00 \\ 1.00 \\ 1.91 \\ \hline \end{gathered}$ | $\begin{gathered} 0.93 \\ 20.48 \\ 2.45 \\ 1.98 \end{gathered}$ | $\begin{gathered} 1.00 \\ 13.50 \\ 2.00 \\ 2.00 \\ \hline \end{gathered}$ | 2.56 | 2.00 |

Table 19．Overall Ranking of Conditions for CBE to Exist per City／Municipality／Province

| Conditions for CBE to Exist | Carmona |  | Malimono |  | Pasay |  | Batangas |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean Score | Rank | Mean <br> Score | Rank | Mean Score | Rank | Mean Score | Rank |
| Social economic stress $\downarrow$ | 1.76 | 3 | 2.83 | 4 | 1.71 | 2 | 1.62 | 1 |
| Community size（average number | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． |
| of household members）$\uparrow$ | 3.05 | 1 | 2.92 | 3 | 2.41 | 4 | 2.94 | 2 |
| Available resources（physical resources）$\downarrow$ | 1.74 | 2 | 1.94 | 4 | 1.92 | 3 | 1.68 | 1 |
| Available financial resources （income）$\uparrow$ | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． |
| －From entrepreneurial activities | 27，203 | 4 | 30，054 | 3 | 40，266 | 1 | 32，302 | 2 |
| －From wages | 105，097 | 1 | 10，853 | 4 | 131，422 | 2 | 73，979 | 3 |
| Availability of social capital $\downarrow$ | 1.92 | 2 | 1.87 | 1 | 1.98 | 4 | 1.96 | 3 |
| Incremental learning $\downarrow$ | 1.46 | 2 | 1.29 | 1 | 1.63 | 4 | 1.53 | 3 |
| Available community skills and experience | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． | n．a． |
| —Literacy $\downarrow$ | 1.59 | 3 | 1.57 | 2 | 0.93 | 1 | n．a． | n．a． |
| －Educational attainment $\uparrow$ | 18.08 | 2 | 17.06 | 3 | 20.48 | 1 | n．a． | n．a． |
| －Work experience $\downarrow$ | 1.32 | 2 | 1.28 | 1 | 2.45 | 3 | 2.56 | 4 |
| －Engagement in entrepreneurial activities $\downarrow$ | 1.96 | 2 | 1.84 | 1 | 1.98 | 3 | n．a． | n．a． |
| Overall ranking | n．a． | 2.18 | n．a． | 2.45 | n．a． | 2.55 | n．a． | 2.38 |

