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Preface

The Journal of Public Affairs and Development (JPAD) is a biannual refereed journal that publishes original articles on public affairs and development concerns such as rural and agricultural policy analysis, institutional innovations and development, local governance, community development and community education, and agrarian issues, among others. Papers that advance understanding on how transdisciplinary social science research can support agriculture and community development or provide analysis on the relationship between various development policy and governance issues are especially welcome.

Preference is given to papers from research and model applications at the community and organizational levels that bridge and integrate social and technical knowledge especially those that underpin agriculture and community development. Because of its emphasis on transdisciplinary approach to development studies, the Journal caters to readers from a wide range of disciplines, including scientists, practitioners, administrators, policymakers, and students in social sciences, natural sciences, and related fields.

The five articles for this issue dwelt on investigation of actors, policies, factors affecting participation and community development, and determinants of sustainability of interventions.

Brillo's article investigated the dynamics among policy actors in the crafting of a policy, specifically the Foreign Bank Liberalization Act, and discussed the leverage of the Senate over the other competing actors. **Docta and Razal** problematized the effects of the Forest Charges Law to rattan-based livelihoods of indigenous peoples and proposed several policy initiatives to mitigate such problems. **Ounthala et al.** examined community

participation and its significance to the attainment of short and long term goals of a community-based project. Using the multinomial logit model, **Gordoncillo and Paunlagui** concluded that the more functional an organization is, the higher the level of its development. This was measured by a quantitative assessment tool known as the Level of Development Assessment. Finally, **Maneja et al.** investigated factors that may influence sustainability of interventions in the local government units.

ROWENA DT. BACONGUIS, PhD
Editor-in-Chief

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Assessing the Legislative Politics in the Making of the Foreign Bank Liberalization Act

BING BALTAZAR C. BRILLO[1]

Abstract: The study is about the dynamics among the actors in the making of the Foreign Bank Liberalization Act or Republic Act 7721. The central issue in the legislation was whether to have a restricted or extensive liberalization of the banking sector. The policy divide was between the Senate-BSP-BAP-resident foreign banks' bloc, which was advocating for a single-mode of entry for foreign banks, and the House-FCCP-the rural-development banks-the academic-business-consumer groups' bloc, which was endorsing a multiple-mode of entry for foreign banks. The Senate-BSP-BAP-resident foreign banks' bloc prevailed since this bloc benefited from three intertwined factors in the legislation process. First, the inevitability of the liberalization of the banking sector left the domestic commercial banks with no recourse but to take an all-out effort to push for a limited liberalization law. Second, the Senate-BSP-BAP-resident foreign banks' bloc was aided by the collective action dilemma among the actors. And third, the internal dynamics among the members of the Senate and the House made it very difficult for the former and tolerable for the latter to compromise.

Keywords: *policy making, legislative politics, pluralism, Republic Act 7721, Foreign Bank Liberalization Law*

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INTRODUCTION

Under the era of economic nationalism, the General Banking Act of 1948 restructured the landscape of the banking industry. The law made the banking system exclusively for Filipinos and placed a moratorium on the entry of new foreign banks in the country. The rationale was by limiting competition from foreign banks, the domestic banks would get the needed protection and the opportunity to expand. Through the decades, this protective condition made the banking industry very profitable. A detrimental effect of the financial success of domestic banks, however, had been the restricted competition leading to an oligopoly in the banking sector. This condition was manifested by undue concentration of bank deposits among few large domestic banks, in the huge gap between savings and borrowings interest rate, and in the poor performance of the local banking sector relative to ASEAN neighbors. With these, calls were made for the lifting of the moratorium and opening of the banking sector to foreign competition. Since the move was expected to bring efficiency, innovations, and better services in the banking industry, the Ramos administration took the cudgel in legislating the foreign bank liberalization law.

This study is about the diversity among political actors in the making of the Foreign Bank Liberalization Act (FBLA) or Republic Act (RA) 7721. The emphasis is on the actors' engagement in the formal legislation process, specifically on the policy divide between having a restrictive or extensive bank liberalization law. In answering why the FBLA took a particular shape, the research made a detailed assessment of the interaction among the legislative actors and stakeholders. The paper first explains the pluralist perspective in policy making analysis; second, it discusses the move towards a foreign bank liberalization policy; third, it illustrates the foreign bank liberalization's policy divide; fourth, it elucidates the

legislative dynamics among the policy actors; and lastly, it presents the concluding remark

Pluralist Perspective in Policy Making Analysis

There are two existing studies on the legislation of banking policy in the Philippines—Paul Hutchcroft's *Booty Capitalism: The Politics of Banking in the Philippines* in 1998; and Antonio Pedro and Eric Batalla's *The Politics of Financial Liberalization* in 2002.[2] The first represents the weak state-elitist tradition, the dominant perspective in interpreting Philippine policy making (see Quirino, 1974; McCoy, 1988; De Dios, 1990; Rivera, 1991; Montes, 1992; Almonte, 1993; McCoy, 1993; Hutchcroft, 1993; Caoili, 1993; Rivera, 1994; Gutierrez, 1994; Doronila, 1994; Rocamora, 1998; Almonte, 2007; Magno, 2009), and the second represents the pluralist tradition, the minority perspective.

Considered as a pioneering work in the politics of banking policy, Hutchcroft, using the concept of booty capitalism, contended that the oligarchs have captured the Philippine state, and that this condition has allowed them to skew the banking policies to their favor. This oligarchic domination has resulted in the unpredictability and inconsistency of banking policies, and in the systematic plunder of the banking sector, via abuse of its loan portfolios and cartel practices. On the whole, Hutchroft's work suggested cohesiveness or homogeneity among the political actors controlling the government's legislative mechanism. Pedro and Batalla's work took off from Hutchcroft's work by critiquing the later. Focusing on the business-government relationship, Pedro and Batalla argued that the fragmentation among business elites prevented the state's capture and allowed the government the leeway to pass the financial liberalization policy.[3] This analysis hinted that, instead of cohesiveness, there was increasing pluralism among the political actors in contemporary Philippine polity.

Taking cue from the literature, the study adopted the pluralist perspective in exploring the dynamics in Philippine policy making. The pluralist perspective views the legislative process as an arena among competing interests, and the policy as a decision which reflects the equilibrium among the interacting actors (see Truman, 1951; Bentley, 1967; Dahl, 1961, 1967, and 1971; Lindblom, 1977). This perspective assumes that actors are autonomous and takes diversified positions vis-à-vis their interest in the policy making equation (Self, 1985; Smith, 1990; Howlett and Ramesh, 1995). Following this assumption, the actors in the study were deemed autonomous collective actors who take actions to influence the legislative process and outcome.

In the policy making of the FBLA, the principal collective actors are the legislature, the bureaucracy, and the interest groups. The legislature corresponds to the two chambers of the Philippine Congress—the Senate and the House of Representatives. The bureaucracy corresponds to the main government agency that actively took part in the legislative deliberations—the Bangko Sentral ng Pilipinas (BSP). And the interest groups refer to the gamut of non-governmental actors that vigorously participated in the legislation process—the Bankers Association of the Philippines (BAP), which represents the domestic commercial banks' interest; the four resident foreign banks—Bank of America (BA), Citibank, Hong Kong Shanghai Bank (HKSB), and Standard Chartered Bank (SCB), which refers to the existing foreign banks in the country prior to the FBLA; Rural Bankers Association of the Philippines (RBAP) and Development Bank of the Philippines (DBP), which represent the rural-development banks' interest; the Foreign Chambers of Commerce in the Philippines (FCCP)[4], which represents the foreign banks' interest; and the academic-business-consumer groups[5], which converge via a liberalization policy lobby group.

The actors' engagement in policy making was delineated via the two diverging positions. On one hand, the Senate, the BSP, the resident foreign banks, and the BAP favor the banking sector's restricted opening to foreign banks. On the other hand, the House of Representatives, rural-development banks, the academic-business-consumer groups, and the FCCP supporting the banking sector's extensive opening to foreign banks. This issue would be the central point in the legislation of the FBLA.

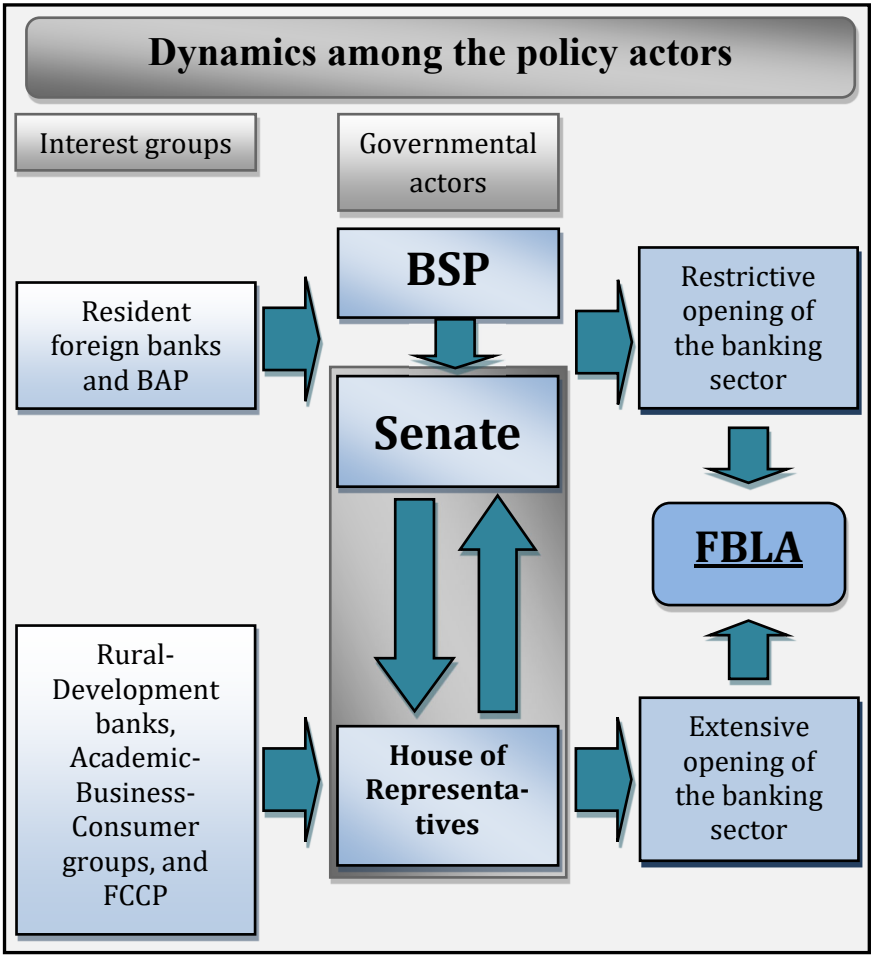

Figure 1. Legislation process of the FBLA

Moving Towards a Foreign Bank Liberalization Policy

In the era when economic nationalism reigned over the banking sector, the Philippine legislature enacted the General Banking Act or RA 337 in 1948 (Batalla, 2002; Pedro, 2002). The law, as it delineated the authority of the Monetary Board, became the principal regulatory statute of the Philippine banking sector. Prior to the law, there were 28 domestic-owned banks and four foreign banks operating in the Philippines—BA since 1947, Citibank since 1902, HKSB since 1867, and SCB since 1872.

The General Banking Act strategically altered the banking industry since it limited the number of banks and encouraged them to increase their size. The rationale behind the policy was that fewer but bigger banks would promote soundness and stability in the banking sector. The regulatory statute essentially made the banking system exclusive for Filipinos by restricting the branching of existing foreign banks and entry of new foreign banks (Milo, 2001). In effect, the law "fossilized" the existing foreign banks to whatever branches they had and placed a moratorium on the entry of other foreign banks in the country. By limiting competition from foreign banks, the thinking was that domestic banks would get the needed protection, the opportunity to expand, and the assurance that the banking sector would be firmly in the hands of Filipino bankers.

With the restriction on the entry and branching of foreign banks continuing throughout the 1970s and 1980s, the local banking sector through the years became one of the most profitable industries in the Philippines (Milo, 2001). The financial success of domestic banks, however, had a downside. The restricted competition in the banking sector was seen as detrimental to the economy, the public, and the long-term viability of the banking industry. For instance, one prominent issue against the prevailing

banking system was the undue concentration of bank deposits among few large domestic banks. The two studies conducted by the Center for Research and Communication (CRC)[6] in 1991 and the Philippine National Bank (PNB) in 1992 showed that seven banks account for 63 and 62.2 percent, respectively, of the total deposits and 66.9 and 63.3 percent, respectively, of the total savings deposits (Congress of the Philippines-House Committee Hearings October 19, 1992).

This oligopolistic condition was often equated to the existence of a banking cartel. Moreover, this situation was exacerbated when the huge profits of domestic banks was superimposed on the bank spread[7] (i.e., the gap between deposits and lending rates). As it was, there existed a wide gap between the low interest rate on savings (around 6%) and the high interest rate on borrowings (around 24%), which translated to a heavy burden on borrowers and an enormous windfall for domestic commercial banks.

Another was the issue of the local banking industry being at the bottom in terms of the number of foreign banks relative to ASEAN neighbors. The Philippines with four foreign banks (compared to 14 in Thailand, 16 in Malaysia, 11 in Indonesia, and 36 in Singapore) has the smallest number of foreign commercial banks. In addition, CRC cited that among ASEAN countries (aside from Thailand),[8] the Philippines was the only banking market that did not allow the entry of foreign banks (Congress of the Philippines-House Committee Hearings, October 19, 1992).[9] The closed-protective nature of the domestic banking industry denied competition from foreign banks. With this condition, the consensus in government was to open the banking sector to foreign banks. This consensus aimed to foster more competition, which eventually was expected to redound to more efficiency, innovations, and better services.

The call for the liberalization of the banking industry began in the early 1980s when the Government of Corazon Aquino undertook the reformulation of economic policies toward greater liberalization. The ensuing political problems that threatened the survival of the administration, however, stalled most of these liberalization reforms (Pedro, 2002). In the 1990s, the liberalization program gradually permeated the banking sector; starting with relaxation of restrictions on the entry and branching of domestic banks and the call for the lifting of moratorium on the entry and operations of foreign banks (Milo, 2001). In 1991, a formal action was taken by Representative Margarito Teves when he filed House Bill 35068 in the Eighth Congress calling for the amendment of the General Banking Act of 1948 to liberalize the entry and scope of operations of foreign banks in the country.

The bill was approved in the House of Representatives, but no corresponding action was made in the Senate (Pedro, 2002). After the May 1992 elections, the newly installed administration of President Fidel Ramos made it a priority to accelerate the phase of the liberalization of the economy. With the commitment of the Ramos administration, Representative Teves re-filed the same bill (now House Bill 263) in the Ninth Congress. Months later, the Senate followed suit. Several bills were filed with the aim of allowing the entry of foreign banks, namely: Senate Bill 839 (Senator Gloria Macapagal-Arroyo), Senate Bill 1474 (Senators Edgardo Angara, Raul Roco, Blas Ople and Neptali Gonzales), and Senate Bill 1653 (Senator Leticia Ramos-Shahani).[10]

Summary of the lawmaking proceedings. In the House of Representatives, House Bill 263 was heard through a joint meeting between the Committee on Banks and Financial Intermediaries, chaired by Representative Jose Carlos Lacson, and the Committee on Economic Affairs, chaired by Representative Felicito Payumo. The joint hearing came out with Committee Report No. 112 on

House Bill 8226 (in substitution to House Bill 263). In the Senate, on the other hand, Senate Bills 839, 1474 and 1653 were heard by the Committee on Banks, Financial Institution and Currencies, chaired by Senator Raul Roco.

The hearing resulted in Committee Report No. 316 on Senate Bill 1606 (consolidated version of the bills 839, 1474 and 1653). On February 2, 1994, President Ramos certified the bill as priority legislation. The House approved the bill on the second reading on May 17, 1993 and third reading on June 10, 1993 (120 affirmative votes, 2 against, and 0 abstention). The Senate approved the second and third readings on March 24, 1994 (14 affirmative votes, 2 against, and 2 abstentions). The House and Senate versions of the bill were reconciled and approved by the Bicameral Conference Committee (Bicam), and ratified by both chambers on May 17, 1994. The foreign bank liberalization law was formally signed by the President on May 18, 1994 and became RA 7721.

Foreign Bank Liberalization's Policy Divide

The move to legislate the foreign bank liberalization law was anchored on three objectives: first, to generate greater competition in the banking industry so as to enhance efficiency and banking services; second, to further integrate the Philippine economy to the global economy; and third, to encourage dispersal of ownership in the banking industry in keeping with the policy of breaking up cartels and monopolies (Congress of the Philippines-Senate Session Proceedings, January 24, 1994). The foreign bank liberalization law was also seen as supplementary and complimentary to then recently enacted Foreign Investment Act (RA 7042) since the law was conceived to further induce and facilitate the inflow of foreign investments.

The main issue in the legislation was the extent of the liberalization, which is whether to have a restricted or extensive opening of the banking sector to foreign banks. Empirically, the concern boiled down to the modes of entry for foreign banks in the banking sector. The entry of foreign banks can take three forms—branching, subsidiary, or acquisition. In branching, the foreign bank simply expands its scope of operation by putting up a branch that is an extension unit in the Philippines. In subsidiary, the foreign bank enters by establishing a wholly or majority locally incorporated bank. And in acquisition, the foreign bank's entry is through outright purchase of the equity of an existing domestic bank or joint venture arrangement, preferably distressed or banks that need to be rehabilitated.

The mode of entry issue polarized the policy actors into two positions: the Senate's position, which is for a limited opening of the banking sector, and the House's position, which is for an extensive opening of the banking sector. In particular, the Senate version restricts to a single mode of entry where a foreign bank once chosen in a particular mode cannot anymore avail of the other modes. The House version allows for multiple modes of entry where a foreign bank can avail of one or all three modes of entering and operating in the country.

Moreover, the Senate-House divide was also manifested in other subsidiary issues. For instance, on the number of branches a foreign bank can establish, the Senate version limits to a total of ten branches only, while the House version has no limits. On the issue of equity ownership, the Senate version restricts the equity ceiling to only 60 percent, whereas the House version allows up to 70 percent equity for foreign banks. And on the time frame of the entry of foreign banks, the Senate version limits the period of entry of foreign banks to five years, while the House version provides no limitation.

The Senate's position was strongly supported by the BSP, the BAP, and the resident foreign banks. The BAP and the resident foreign banks' behavior was consistent with protecting their interests, as allowing more foreign banks coming would mean more competition for them, which could translate to less market share and profit. In other words, the domestic commercial banks and the four existing foreign banks would like to lessen the repercussion of the liberalization policy and maintain the advantages that they enjoyed in the past via restrictive competition. With this intention, the BAP and the resident foreign banks ardently lobbied the Senate for a single mode of entry for foreign banks. The BAP and the resident foreign banks' influence was evident when Senator Gonzales admitted that the single mode entry proposal came at their behest (Congress of the Philippines-Bicameral Conference Committee, April 21, 1994).

The BSP's support for the Senate's version was in line with the government agency's commitment to protect domestic commercial banks. This relationship between the BSP and the domestic commercial banks was underpinned by the strong bond between the BSP leadership and the BAP, as the past and present heads of the former usually come from the latter. Accordingly, the BSP, in the committee hearings, argued that allowing multiple entries, specifically the acquisition and subsidiary mode, would prejudice domestic commercial banks, and that by concentrating on just one mode, the legislation would be hastened. Here, the BSP cited that allowing the two other modes would violate provisions in the General Banking Act (specifically, Section 12-A, 12-B, and 12-D), and hence, would complicate and delay the legislative proceedings. The BSP's position was formally stated by Feliciano Miranda: "The Monetary Board has adopted the position that amendments to existing provisions of RA No. 337, as amended, be limited to provisions governing the entry of foreign banks only through the

establishment of branches in the Philippines" (Congress of the Philippines-House Committee Hearings, October 19, 1992: 23).

Moreover, the Senate's position in favor for a restricted liberalization law was buoyed by the prevailing nationalist sentiment among its members that the local banks would need protection from the competition that would come from the influx of foreign banks (Congress of the Philippines-Senate Conference Committee Report, May 16, 1994). This sentiment was made clear by Senator Gonzales in the Bicameral Conference Committee, when he admonished the body that its primary consideration was the protection of domestic banks (Congress of the Philippines-Bicameral Conference Committee, April 21, 1994).

The House's position, on the other hand, was strongly supported by the FCCP, the rural-development banks, and the academic-business-consumer groups. The FCCP's support to a more encompassing opening of the banking sector was a given since its members—the American, Canadian, Australian-New Zealand, Japanese, and European Chamber of Commerce of the Philippines—would directly benefit from the liberalization law. Foreign banks would not only gain access to the Philippine market but could avail of multiple-entry options.

The rural-development banks' support for the House bill was anchored on the perception that the liberalization law has no serious deleterious effect on them. For instance, DBP, representing development banks, believed that their operations would be unaffected, as multilateral institutions (e.g., WB, IMF, and ADB)[11] prefer to do business, such as providing development financial assistance through the government's development bank, with or without the entry of foreign banks. While RBAP, representing rural banks, believed that foreign banks have a different customer base, and would not establish branches in rural areas; hence, foreign

banks would not directly compete with the rural banks for market share. Moreover, RBAP sensed that with the entry of more foreign banks, the rural banks would benefit, as they anticipate potential business partners and expect a boost in their remittance business.

The academic-business-consumer groups' support for the House's version was grounded on the consensus that the extensive liberalization of the banking sector would redound to their benefit and to the country as a whole. For instance, PCCI, representing the business industry, and NEPA, representing the consumers, stated publicly that the expected increase in competition in the banking sector brought about by the entry of foreign banks, would be better overall for the entire business sector and the consumers. The ideological rationalization on this was supplied by the academic groups, in particular, PIDS and CRC. For instance, PIDS' Dr. Mario Lamberte (1993), arguing for the multiple modes of entry for foreign banks, contended that partial deregulation will have less meaningful effect since the aim is to create a contestable financial market where the threat of potential entry must be credible and sufficient to force incumbents to behave like competitors. He further explained that there is no need to restrict the opening of the banking sector, as the market will ultimately determine the optimal number of foreign banks in the country. CRC elucidated the expected benefits of full liberalization, such as market de-concentration, lower loan rates, and efficient performance of the banking market. As evidence, CRC cited the success experienced by other ASEAN countries when they implemented extensive liberalization in their banking sector.

Moreover, the House of Representatives' position in favor for an extensive liberalization law was buoyed by the prevailing sentiment among its members that the country urgently needs to send a strong signal to the international community in order to compensate for its lateness in liberalizing the banking sector

(Congress of the Philippines-House Conference Committee Report, May 16, 1994). This sentiment corresponds with the Ramos administration's desire to accelerate economic growth and help the Philippines to catch up with its neighboring ASEAN countries.

The Legislative Dynamics Among the Policy Actors

The policy divide between the Senate-BSP-BAP-resident foreign banks' bloc (that is, advocating for a restricted foreign bank liberalization law), and the House-FCCP-the rural-development banks-the academic-business-consumer groups' bloc (that is, endorsing an extensive liberalization policy) was settled when the legislature came up with a law that partially liberalized the entry and operations of foreign banks. Thus, the Foreign Bank Liberalization Act or RA 7721 reflected the position of the Senate-BSP-BAP-resident foreign banks' bloc. The restrictiveness of the FBLA was shown in the following sections of the law.

> ***Sec. 2. Modes of entry*** — The Monetary Board may authorize foreign banks to operate in the Philippine banking system through any of the following modes of entry: (i) by acquiring, purchasing or owning up to sixty percent (60%) of the voting stock of an existing bank; (ii) by investing in up to sixty percent (60%) of the voting stock of a new banking subsidiary incorporated under the laws of the Philippines; or (iii) by establishing branches with full banking authority: Provided, that a foreign bank may avail itself of only one (1) mode of entry: Provided, further, that a foreign bank or a Philippine corporation may own up to a sixty percent (60%) of the voting stock of only one (1) domestic bank or new banking subsidiary.
>
> ***Sec. 4, (ii) For foreign bank branches*** — The foreign bank may open three (3) additional branches in locations

> designated by the Monetary Board by inwardly remitting and converting into Philippine currency as permanently assigned capital, the U.S. dollar equivalent of Thirty-five million pesos (P35,000,000.00) per additional branch at the exchange rate on the date of the effectivity of this Act, as ascertained by the Monetary Board. The total number of branches for each new foreign bank entrant shall not exceed six (6).
>
> ***Sec. 6. Entrants under Section 2 (iii)*** — Foreign banks shall be allowed entry under Section 2 (iii) within five (5) years from the effectivity of this Act. During this period, six (6) new foreign banks shall be allowed entry under Section 2 (iii) upon the approval of the Monetary Board.[12]
>
> ***Sec. 10. Transitory provisions*** — Foreign banks operating through branches in the Philippines upon the effectivity of this Act, shall be eligible for the privilege of establishing up to six (6) additional branches under the same terms and conditions required by Section 4 (ii) hereof.[13] [14]

The policy making process and outcome was shaped by three intertwined factors present in the legislation. The first factor is that the policy actors were working on the premise that economic liberalization is the government's framework for economic development since post-EDSA (see Brillo, 2010a; Brillo, 2010b). The Ramos administration also did not only continue the liberalization policy of its predecessor but considerably accelerated the liberalization of the economy. The Ramos administration showed its unwavering commitment towards liberalization when the government spearheaded the enactment of the Foreign Investment Act, reorganized the Central Bank, and dismantled the monopoly in the telecommunications industry (Pedro, 2002). In the legislation of the FBLA, the Ramos administration's resolute

commitment to liberalization has made the opening of the banking sector to foreign banks inevitable to both the Senate-BSP-BAP-resident foreign banks' bloc and the House-FCCP-the rural-development banks-the academic-business-consumer groups' bloc. For the directly affected sector, specifically the BAP and the resident foreign banks, the certainty of the foreign bank liberalization law was already a concession to the government. Henceforth, the BAP and the resident foreign banks became so determined to make an all-out push for the only logical remedy available to them—influence the law's formulation to ensure that some level of protection is afforded to them.

The second factor is that the policy making equation among the actors suffered from collective action dilemma. The dilemma happens when the costs are immediately felt and concentrated on a small group while the benefits have long-term impact and spread to a much larger group. This scenario creates strong incentives for the former and disincentives for the latter to mobilize for collective action (see Olsen, 1965). The situation intensifies when the small group is highly organized, well-funded, and politically influential, compared to the larger group (Reich, 2002).

In the case of the FBLA, the collective action dilemma benefited the Senate-BSP-BAP-resident foreign banks' bloc against the House-FCCP-the rural-development banks-the academic-business-consumer groups' bloc. (1) As to the costs, the BAP and the resident foreign banks were expected to bear the brunt of the liberalization policy. Being the sectors directly threatened, the BAP and the resident foreign banks have strong incentive to intervene and heavily influence the policy outcome. Compared to the rural-development banks and the FCCP-academic-business-consumer groups, the former would not be significantly affected, while the latter perceived gains in the long term; hence, they have less incentive to intensify the move to influence the policy outcome.

(2) As to the strength of the contending groups, the BAP and the resident foreign banks have the advantage since overall, their groups were more organized and have the financial muscle and the political connections. Relative to the rural-development banks and the FCCP-academic-business-consumer groups, the former was minuscule (in size, capital, and market) compared to the domestic commercial banks, and the latter, in general, was broad-based (as to the academic-business-consumer groups) and an external actor (as to the FCCP).

In consequence, the rural-development banks, the FCCP-academic-business-consumer groups took a more moderate involvement in the legislation process compared to the aggressive stance put up by the BAP throughout the proceedings. Moreover, the BAP and the resident foreign banks' cause was boosted by the support of their patron agency, the BSP. The BSP's involvement was significant since its opinion had more weight to the lawmakers being the principal government agency for the banking sector.

The third factor is the internal politics that exists in the Senate and in the House of Representatives. The Senate, as a legislative body, has long been regarded for its members' independence in decision making (Caoili, 2006; Brillo, 2013). The Senators usually exhibit more autonomy (in relation to their leadership's position or their political party's stand) in voting over a bill. In the legislation of the FBLA, the autonomy of the Senators was visible from the opposition's unwavering quest to provide protection to domestic commercial banks amid the anticipated influx of foreign banks.[15] In effect, the Senate's committee chair Senator Raul Roco had to make considerable concessions, via restrictive measures in the policy, to appease the opposition not to block the bill's passage and at the same time, ensure the necessary number of votes to approve it. Thus, with its commitments to the opposition, the Senate became very firm in its position, particularly during the Bicameral Conference Committee.

On the other hand, the House of Representatives has long been regarded for its members' submissive behavior in decision-making (Gutierrez, 1994; Coronel, Chua, Rimban, & Cruz, 2004). The Congressmen, in general, are more obedient to their leadership's position (regardless of party affiliations) in voting over a bill. In the legislation of the FBLA, the submissiveness of the Congressmen was shown when chamber readily acceded to the request of its leadership to swiftly approve the extensively liberalized version of the bill with no modifications. Since the House of Representatives' position was largely determined by its leadership, the chambers policy stand was more flexible in the sense that it did not have commitments to the opposition to satisfy and that its members tend to accept the compromises entered into by their leaders, particularly during the Bicameral Conference Committee. Thus, the unyieldingness of the opposition in the Senate and the acquiescence of members of the House Representative to their leadership made it difficult for the former and tolerable for the latter to enter to a compromise in the Bicameral Conference Committee.

CONCLUSIONS

In the move to legislate the foreign bank liberalization law, the central issue was whether to have a restricted or extensive liberalization of the banking sector. The issue divided the policy actors into the Senate-BSP-BAP-resident foreign banks' bloc, which was advocating for a single-mode of entry for foreign banks, and the House-FCCP-the rural-development banks-the academic-business-consumer groups' bloc, which was endorsing a multiple-mode of entry for foreign banks.

The Senate's position was underpinned by the sentiment that it must give protection to the domestic commercial banks. The BSP supported the Senate position since it was also committed to

promoting the interest of the domestic banks, while the BAP-the resident foreign banks saw the urgent need to defend their advantage. On the other hand, the House's position was underscored by the sentiment that all-encompassing liberalization is essential to jumpstarting economic growth. The FCCP supported the House position since it anticipated gaining a foothold on the local banking market. The rural-development banks saw no serious adverse effect, and the academic-business-consumer groups believed that extensive liberalization is better for everyone.

The Senate-BSP-BAP-resident foreign banks' bloc prevailed over the policy divide via a law that partially liberalized the entry and operations of foreign banks. The legislative politics was characterized by three intertwined factors. First, the inevitability of the liberalization of the banking sector left the directly affected sector—the domestic commercial banks—with no alternative but to make an all-out push for a restrictive liberalization law. Second, the Senate-BSP-BAP-resident foreign banks' bloc benefited from the collective action dilemma, which strengthened their resolve and position. And third, the prevailing characteristic among the members of the Senate and the House made it very difficult for the former and tolerable for the latter to compromise. Summing up, these factors generated a policy making dynamics that reinforced the position of the Senate-BSP-BAP-resident foreign banks' bloc and weakened the position of the House-FCCP-the rural-development banks-the academic-business-consumer groups' bloc, hence, sealing a more restrictive FBLA.

END NOTES

[2] Batalla is the book's editor, and Pedro's article is entitled Legislating Banking Liberation in the Philippines: Business-Government Relations in Policy Reform

[3] For earlier work on the fragmentation in Philippine politics, see 1992

[4] American Chamber of Commerce of the Philippines (ACC), Canadian Chamber of Commerce of the Philippines (CCC), Australian-New Zealand Chamber of Commerce of the Philippines (A/NZC), Japanese Chamber of Commerce and Industry of the Philippines (JCCI), and the European Chamber of Commerce of the Philippines (ECC)

[5] The Center for Research and Communication (CRC), the Philippine Institute for Development Studies (PIDS), Philippine Exporters Confederation (PhilExport), National Economic Protectionism Association (NEPA), and the Philippine Chamber of Commerce and Industry (PCCI)

[6] CRC is a private think-tank that conducts economic and social research. It is now the University of Asia and the Pacific

[7] In general, bank spread refers to the difference between the interest rate a bank charges a borrower and the interest rate a bank pays a depositor (http://www.special-loans.com/dictionary)

[8] Although Thailand does not allow the entry of foreign banks, it has more foreign banks operating compared to the Philippines

[9] In 1993, the existing four foreign banks had a total of nine branches, while the 32 domestic banks had an aggregate total of 2,360 branches

[10] This paragraph relied heavily from Pedro (2002)

[11] World Bank, International Monetary Fund, and Asian Development Bank

[12] An additional four foreign banks may be allowed entry on recommendation of the Monetary Board, subject to compliance

with Sections 2, 3, 4, and 5 of this Act upon approval of the President as the national interest may require

[13] Underscoring was made for emphasis

[14] Overall, only 10 foreign banks were allowed entry to operate by the FBLA (Hapitan, 2001)

[15] Notably Senators Arturo Tolentino, Ernesto Maceda, Anna Dominique Coseteng, and Wigberto Tanada

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Assessment of Organizations as Catalysts for Community Development: An Application of the Multinomial Logit Model

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Abstract: Agrarian Reform Communities or ARCs are clusters of land reformed barangays primarily composed and managed by Agrarian Reform Beneficiaries who are willing to be organized and undertake the integrated development of an area and/or their organizations/cooperatives. Organizations serve as channel for support services such as credit, marketing support, and training programs. To measure the level of development of ARCs, the Department of Agrarian Reform developed a quantitative assessment tool known as the ARC Level of Development Assessment (ALDA). This paper used the data drawn from a survey of cooperatives in the ARCs in selected provinces of MIMAROPA, Bicol Region, Western Visayas, Eastern Visayas, and Western Mindanao. The key variables analyzed in the model are the ALDA rating, knowledge and practice scores, which served as the proxy variable for the functionality of the organizations, the proportion of inactive members in the organization, and the total number of members. The estimates of the multinomial logit model showed

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that the level of functionality of the organizations significantly influences the level of community development. Specifically, the better is the functionality of the organization, the higher is the likelihood that the ARC will have a higher ALDA rating.

Keywords: *agrarian reform communities, organizational maturity assessment, agrarian reform beneficiaries, ARC level of development assessment, multinomial logit*

INTRODUCTION

The Comprehensive Agrarian Reform Program (CARP) is one of the most significant development interventions designed by the government to address social justice and promote rural development. In the earlier years of implementation, the Department of Agrarian Reform (DAR), which is the key agency of the government mandated to implement CARP, adopted the Strategic Operating Provinces (SOP) approach. This was basically a strategy to focus implementation in 43 provinces, where the total estimated scope of CARP was concentrated.

However, in the early 1990s, DAR adopted the Agrarian Reform Communities (ARC) approach to CARP implementation (Gordoncillo, Escueta, Peñalba, & Javier, 2003). In this strategy, a barangay or cluster of barangays where there is a critical mass of agrarian reform beneficiaries (ARBs) are organized as an ARC. ARC development has been identified as a strategic approach to address the development requirements of the farming communities because it harnesses the internal and external resources of various stakeholders to create impact on the lives of the farmers. The ARC is a people-centered and area-focused strategy to show concrete results and impact.

In 1996, the DAR developed guidelines and procedures to determine whether the interventions focused on achieving the end goals of ARB empowerment, which is increasing agricultural productivity and household have been achieved in the ARC. ARC Level of Development Assistance or ALDA is a composite index to assess the status of the ARCs, of which organizational maturity (OM) is one of the key result areas (KRA) together with the areas of land tenure improvement (LTI), economic and physical infrastructure support services (ECOPISS), farm productivity and income (FPI), basic social services (BSS), and gender and development (GAD).

Thus, it is not surprising that one of the key requirements for the creation of an ARC is the presence of a Peoples' Organization (PO), which can be a farmers' organization or a cooperative. Some of these organizations may eventually be organized into a cooperative or remain as farmers' organizations. The basic argument is that, the PO/cooperative in each ARC will serve as the conduit for all support services under CARP post interventions for land tenure improvement. At the same time, the PO will serve as the convergence point of all interventions coming from the Overseas Development Assistance (ODA). The organizations are contributing to the growth and development of their respective agrarian reform communities. Some of these have been awarded as Outstanding Agrarian Reform Cooperatives both at the local and national levels. Thus, this paper is an attempt to establish the link between the performance or functionality of the peoples' organizations or the cooperative in the ARC and the overall development of the agrarian reform community.

METHODOLOGY

Data and Sources

The data set used in this study was drawn from a survey of about 185 POs from ARCs spread across 13 provinces in five regions. The survey was part of the benchmark study for the implementation of the Agrarian Reform Communities Project 2 funded through a loan from the Asian Development Bank (ADB).

The Variables

ARC Level of Development Assessment (ALDA). It is a composite index to measure the socio-political, economic and environmental development in the ARC brought about by concerted effort and synergy of various stakeholders within and outside the ARC. The key result areas (KRA) of ALDA are as follows: 1) land tenure improvement (LTI); 2) organizational maturity (OM); 3) economic and physical infrastructure support services (ECOPISS); 4) farm productivity and income (FPI); 5) basic social services (BSS); and 6) gender and development (GAD). The weighted average of each KRA used in computing the ARC level of development is shown below:

Land Tenure Improvement (LTI)	—	0.0928
Organizational Maturity (OM)	—	0.1941
Economic and Physical Infrastructure Support Services (ECOPISS)	—	0.2404
Farm Productivity and Income (FPI)	—	0.1669
Basic Social Services (BSS)	—	0.1929
Gender and Development (GAD)	—	0.1130

The weights were obtained using statistical methods that account for many factors including, stability of data for the KRA, overlap among the KRAs in terms of explaining Sustainable Rural Development, among others. The KRAs exhibited some degree of association. Hence, the correlations among KRAs are used in the rational distribution of weights to the KRAs to augment statistical methods (DAR, 2001).

Organizational Maturity Assessment (OMA). As defined in DAR Memorandum Circular 03-01, OMA is an assessment of the outputs and outcomes of the intervention under the Organizational Building and Strengthening (OBAS) KRA. This KRA deals with the assessment of the organizational functionality and financial viability of the ARB organizations in the ARCs. Specifically, this KRA is composed of 27 indicators, covering four major aspects namely: (a) organizational management; (b) resource management; (c) social enterprises operations; and (d) linkages and alliance building or involvement in local governance. The organizational management aspect looks at the organizational structure, membership and leadership management, functionality of board of directors and committees, level of participation of leaders and members, and training provided. The resource management aspect defined the generation of internal resources of the ARB organization, which include: capital build-up generation, savings mobilization, and employment of core management staff. The social enterprises operations and management aspect is focused on: (a) installation of financial and operational policies, systems and procedures (PSP); (b) projects implemented and services provided by the ARB organization; and (c) financial performance. The local governance and alliance building aspect pinpoints the extent of representation and collaborative work between ARB organizations and the local government units (LGUs) where the ARC is situated.

The OMA has five levels of maturity threshold: Level 1 - Low level of development (<57.33); Level 2 - Lower medium level of development (57.34-62.96); Level 3 - Medium level of development (62.97-68.61); Level 4 - Higher medium level of development (68.62-74.29); and Level 5 - High level of development (74.30 and above).

Knowledge and Practice Score (KP). Conventionally, institutional performance indicators are designed to solicit information in order to generate quantitative measures of performance. This is often measured in terms of financial stability, cost effectiveness, and efficiency, among others. However, experience showed that soliciting financial information is very tedious, expensive and in most cases, unreliable. Each qualitative response variable is designed to solicit a positive or negative response. For each positive response, the subject is given one point. Hence, the composite score is simply the ratio of the positive responses to the total number of qualitative binary-response variables.

In this particular study, the functionality of the ARC-based cooperative was measured with the composite score as the proxy variable composed of qualitative binary-response questions, for example: Is the Cooperative registered?; Is the subscribed capital fully paid up?; Are the staff of the cooperative able to use computers?; and Is the cooperative linked to a secondary level umbrella organization?

Years of existence post registration of the organization to the CDA. This refers to the number of years the organization has been registered with the Cooperative Development Authority.

Proportion of inactive members. This refers to the proportion of members who have not attended meeting nor

participated in the activities of the farmers' organization or cooperative at the time of the survey.

Ratio of female to male members. This refers to the proportion of female to male members of the organization.

The Multivariate Regression Model

To determine the relationships between the OMA and the other predictor variables, the following multivariate regression model was estimated:

$$OMA = \alpha_0 + \alpha_1 KP + \alpha_2 YEARS + \alpha_3 SRATIO + \alpha_4 INMEM + \varepsilon i$$

where:

OMA - Organizational maturity assessment rating
KP - Composite knowledge and practice score
YEARS - Number of years the organization has been in existence
SRATIO - Ratio of the number of female members to male members
INMEM - Ratio of inactive members to the total number of members

The Multinomial Logit Model

To determine the relationship between the level of development of the community and the functionality of the organization and the other attributes, the standard OLS estimation cannot be performed because ALDA, which is the available measure of the level of development is qualitative. To address this issue, the logit model was employed to measure the relationship between ALDA and the attributes of the cooperative.

To illustrate this, the ALDA rating can be simplified as binary variable representing either a developed or an undeveloped ARC. Hence the probability function of the likelihood that a cooperative is developed is represented by a logistic function as illustrated by Gujarati (1988). Suppose the symbol P represents the likelihood that the organization is developed, then the logistic function is:

$$P_i = \frac{1}{1 + e^{-Y_i}} \qquad 1]$$

where:

P_i - is the probability that the ARC is developed

E - is the natural log constant

$$Y_i = \beta_0 + \sum_1^n \beta_i X_i \qquad 2]$$

However, equation 1] has serious estimation problems because it is non-linear both in the variables and in the parameters. The way out of this predicament is a simple algebraic manipulation.

If the probability that the ARC is given by

$$P_i = \frac{1}{1 + e^{-Y_i}} \qquad 3]$$

then, the probability that the ARC is underdeveloped is

$$1 - P_i = 1 - \frac{1}{1 + e^{-Y_i}} \qquad 4]$$

By algebraic manipulations, equation 4] can be expressed as

$$\frac{P_i}{1 - P_i} = e^{Y_i} \qquad 5]$$

Taking the natural logarithm of 5] yields

$$\ln\left(\frac{P_i}{1-P_i}\right) = \beta_0 + \sum_{1}^{n} \beta_i X_i \qquad 6]$$

Equation 6] can now be estimated because it is linear in both the variables and the parameters. One only needs to bear in mind, in the interpretations, that the dependent variable is now the natural logarithm of the ratio of the odds of the ARC being developed as against the odds of the ARC being undeveloped, which is now linearly associated with the attributes of the cooperative.

For the purpose of estimating the relationship between the level of community development and the attributes of the organization, equation 6] is still not applicable because the ALDA is a 5-level categorical variable, which is a rating from 1-5: with 1 being the lowest and 5, the highest. Fortunately, the derivation of the logit model based on a binary qualitative response outlined above can be easily expanded to a multinomial model provided that one specifies the reference category.

RESULTS AND DISCUSSIONS

Descriptive Analysis

The total number of ARCs covered in the study was 185 (Table 1). The highest number was in the Eastern Visayas Region, which accounted for 33 percent of the total ARCs, closely followed by Western Mindanao with 32 percent. Of the 185 organizations, 88 percent are registered with the Cooperative Development Authority (CDA).

The data indicate that the knowledge and practice score was higher for those registered with the CDA. For instance, the

mean OMA rating for registered organizations was 64.50 compared to 46.39 for those that were not registered with the CDA (Table 2). A similar pattern emerges when the KP scores are examined. The mean KP score for the registered cooperatives was more than twice the KP score of non-registered cooperatives.

The higher the ALDA rating, the higher was the KP score. For the CDA-registered cooperatives/organizations, the KP scores consistently increased as the ALDA rating got higher. For instance, when the ALDA rating was 1, the mean KP score for the registered organization was 24, then increased to 32 of an ARC with a rating of 2 (Table 3). For the unregistered organizations, the KP score ratings were not consistent as the ALDA rating of the ARC increased. For instance, the mean KP score was 25.00 for an ARC with an ALDA rating of 2 then dropped to a mean KP score of 13.25 for an ARC with an ALDA rating of 3.

There seemed to be no relationship between ALDA rating of the ARC and the ratio of female to male members of the cooperative/organization (Table 4). Similarly, there was no relationship for ALDA rating of the ARC and the proportion of inactive members of registered and non-registered organizations (Table 5) and years of existence of registered and non-registered organizations (Table 6).

Inferential Analysis

For the inferential analysis, there were two models estimated. The first model was estimated to determine the factors that influenced the organizational maturity of the cooperatives. Specifically, the estimated model was:

$$OMA = \beta_o + \beta_1 KP + \beta_2 PIM + \beta_3 FMR + \beta_4 YER + \beta_5 CDA + \varepsilon_i$$

where:

OMA - Organizational maturity assessment rating
KP - Knowledge and practice score
PIM - Proportion of inactive members
FMR - Ratio of female members to male members
YER - Years of existence
CDA - A binary variable: 1 if registered, 0 if otherwise

Table 7 shows the estimated parameters for the OMA model. The variables that showed significant influence to the organizational maturity of the cooperatives were KP score, Female/ Male Member Ratio, and CDA registered. The KP score coefficient conformed to the a priori expectations that the higher the functionality of the cooperative, the higher was the OMA rating, and the parameter estimate was highly significant as indicated by the alpha (probability) value of 0.000. The estimated parameter of the FMR variable, which measures the ratio of female member to male members showed a negative sign, which indicated that the higher the proportion of male members, the higher was the OMA rating of the cooperative. The parameter estimate of the FMR variable was also highly significant given the probability value of about 0.004. Finally, the binary variable, which was designed to capture the difference between a registered and non-registered cooperative, was highly significant and had a positive coefficient. This was consistent with the theoretical expectation that cooperatives registered with the CDA would have higher OMA rating.

The second model estimated was the multinomial logit, which was designed to determine the effects of selected attributes of the cooperatives to the overall development of the community through the ALDA rating of the ARC.

The estimated multinomial logit is of the form:

$$\ln(\frac{P_i}{1-P_i}) = \beta_0 + \beta_1 KP + \beta_2 PIM + \beta_3 FMR + \beta_4 YER + \beta_5 CDA + \varepsilon_i$$

where:

P_i - The probability that the PO would have the i^{th} ALDA rating
KP - Knowledge and practice score
PIM - Proportion of inactive members
FMR - Ratio of female members to male members
YER - Years of existence
CDA - A binary variable: 1 if registered, 0 if otherwise

Table 8 shows the parameter estimates of the ordered logit model. The probability values of the threshold estimates indicate that as ordered there was a significant differentiation of the odds ratio except for the case of the values estimated between ARCs with ALDA rating of 2 and below and 3 and above (ALDA=2). In terms of the explanatory variables, the significant estimates were for knowledge and practice, ratio of female to male members, and whether or not the PO was registered with the Cooperative and Development Authority. For instance, as KP increased, the odds ratio in its natural logarithm increased by 0.029, which was significant at 0.002.

The marginal effects are the estimated first order conditions of the logit function (Greene, 2012) for each category minus the 5^{th} category (ALDA=5). For instance, as KP rating increases by one unit, the probability that the ARC will likely be in the upper category increases by 0.25. The threshold values are analogous to an intercept in ordinary regressions, so the marginal

effects are based on the single coefficient per predictor, because the logit procedures assumes that the effects will be the same for the logit function for each category.

The ordered multiple logit estimates a single model for all categories, consequently some of the characters of the differentiation are lost. Hence a non-ordered logit was also estimated. Table 9 shows the estimated parameters of the unordered multinomial logit model with the ALDA rating as the dependent variable. In the multinomial logit model, the first category (level 1) was used as the reference point.

In the model, the parameter estimates of the specific attributes of the organizations such as PIM, FMR, YER, and CDA did not significantly influence the general level of community development as measured by the ALDA. However, the overall functionality of the organization as measured by the KP score has consistently shown significant influence on the likelihood of the organization being classified into a higher rating referenced from the lowest rating (level 1). For instance, as the knowledge and practice score of the cooperative increases, the ratio of the likelihood that the community being rated level 1 increases by about 1.14, and the level of significance by about 13 percent.

It is interesting to note that as the multinomial logit procedure moved up the ALDA rating, the level of influence as well as the level of significance were increasing. From 13 percent between ALDA 1 and ALDA 2, the level of precision increased to 5.3 percent between ALDA 1 and ALDA 3, 2 percent between ALDA 1 and ALDA 4, and the level of precision was highest at 0.05 percent between ALDA 1 and ALDA 5. Similarly, the coefficient for the KP score – variable was increasing across the ALDA rating: from 0.04 between ALDA 1 and ALDA 2; the level of precision increased to 0.05 between ALDA 1 and ALDA 3; 0.06 between ALDA 1 and ALDA

4; and the level of precision was highest at 0.08 between ALDA 1 and ALDA 5. This shows that the effect of the functionality of the organization to the level of development of the community intensifies as the level of development increases.

Similarly, the marginal effects are the computed first order conditions of the logit function for each category. However, in this section, the estimates are for an unordered logit; hence, the reference is for the first category (ALDA=1). For instance , in the second category, the marginal effect was estimated at 0.28, which means that as the KP scores increased by one unit, the probability that the ARC would have ALDA=2 relative to ALDA=1 increased by 0.28. As in the ordered logit, there was only one parameter estimate for each predictor variables because of the assumption that the influence of the predictor variables in the probability function was the same for each category.

CONCLUSIONS

The descriptive analysis provided the discernable pattern that there is a relationship between the OMA rating and the selected attributes of the organizations, and that the knowledge and practice scores of the organizations is associated with their overall level of development.

The estimated models provided the more quantified measures of the relationships between OMA and ALDA as against the selected attributes of the organizations. The estimated model for the OMA showed that the functionality of the organization as measured by the KP score, the demographic attributes of the membership, and the legal status of the organization had significant influence on the OMA rating. The multinomial logit procedure showed that the overall level of development of the community through the ARC was significantly influenced by the functionality of

the organization. This has significant implication to the implementation of the CARP because as a matter of strategy, CARP uses the organization as the main conduit of interventions to the community through the ARC. Further, the study also established that the influence of the functionality of the organization intensified as the cooperative increased its level of development.

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TABLES

Table 1. Distribution of ARCs by region and by status

REGION		CDA REGISTERED		TOTAL
		Yes	No	
Bicol Region	Count	26	1	27
	% Column	16%	4.5%	14.6%
MIMAROPA	Count	21	0	21
	% Column	12.9%	0%	11.4%
Central Visayas	Count	16	0	16
	% Column	9.8%	0%	8.6%
Eastern Visayas	Count	45	16	61
	% Column	27.6%	72.7%	33%
Western Mindanao	Count	55	5	60
	% Column	33.7%	22.7%	32.4%
Total	**Count**	**163**	**22**	**185**
	% Column	**100%**	**100%**	**100%**

Table 2. OMA rating and KP score for ARCs registered and not registered with CDA

CDA REGISTERED	OMA	KP SCORE
Yes	64.50	39.15
No	46.39	15.64
Total	**62.35**	**36.36**

Table 3. ALDA rating of ARCs by KP score of registered and non -registered cooperatives

ALDA RATING	KP SCORE		
	CDA registered		
	Yes	No	Total
1.00	24.00	10.75	19.58
2.00	32.14	25.00	30.88
3.00	37.19	13.25	32.84
4.00	38.87	13.20	35.31
5.00	43.19	27.00	42.76
Total	**39.15**	**15.64**	**36.36**

Table 4. ALDA rating and ratio of female to male members of registered and non-registered organizations

ALDA RATING	MALE:FEMALE RATIO OF MEMBERS		
	CDA registered		
	Yes	No	Total
1.00	0.82	1.92	1.19
2.00	1.44	1.41	1.44
3.00	1.61	1.28	1.57
4.00	0.91	1.00	0.92
5.00	1.11	0.85	1.11
Total	**1.21**	**1.33**	**1.22**

Table 5. ALDA rating and proportion of inactive members of registered and non-registered organizations

ALDA RATING	PROPORTION OF INACTIVE MEMBERS		
	CDA registered		
	Yes	No	Total
1.00	39.73	16.00	31.10
2.00	22.00	14.33	20.65
3.00	20.10	11.13	18.47
4.00	17.98	23.60	18.81
5.00	22.87	27.50	23.00
Total	**21.99**	**16.77**	**21.34**

Table 6. ALDA rating and mean years of existence of registered and non-registered organizations

ALDA RATING	YEARS OF EXISTENCE AS OF REGISTRATION		
	CDA registered		
	Yes	No	Total
1.00	9.63	12.00	10.42
2.00	10.50	12.00	10.76
3.00	10.28	12.00	10.59
4.00	8.35	12.00	8.86
5.00	10.03	12.00	10.08
Total	**9.79**	**12.00**	**10.05**

Table 7. Estimated parameters of the OMA model

PARAMETERS	UNDERSTANDARDIZED COEFFICIENTS			
	B	Std. Error	t	Sig.
(Constant)	43.519	4.123	10.556	0
KP Score	0.422	0.006	6.393	0
Proportion of Inactive Members	-0.019	0.048	-0.397	0.692
Female:Male Member Ratio	-2.242	0.772	-2.906	0.004
Years of Existence	-0.007	0.170	-0.040	0.968
CDA Registered	7.165	3.684	1.945	0.054

Table 8. Estimated parameters for the ordered logit of ALDA and the selected explanatory variables

PARAMETER ESTIMATES		ESTI-MATE	STD. ERROR	SIG.	ODDS RATIO (Exp)B	MARGINAL EFFECTS
Threshold	[alda = 1.00]	-1.598	0.586	0.006	0.202	
	[alda = 2.00]	-0.525	0.551	0.341	0.591	
	[alda = 3.00]	0.897	0.556	0.106	2.453	
	[alda = 4.00]	1.764	0.566	0.002	5.833	
Location	KP	0.029	0.009	0.002	1.030	0.257
	FMR	-0.176	0.103	0.085	0.838	0.208
	PIM	-0.002	0.006	0.716	0.998	0.249
	YER	-0.023	0.023	0.314	0.977	0.244
	CDA	0.768	0.488	0.116	2.155	0.467

Link function: Logit.

Table 9. Estimated parameters of the un-ordered multinomial logit model with the ALDA rating as the dependent variable

PARAMETER ESTIMATES					
ALDA Rating(a)		**B**	**SIG.**	**EXP(B)**	**MARGINAL EFFECT**
2	Intercept	-0.541	0.686	1.985	
	KP	0.047	0.139	1.149	0.286
	FMR	-0.002	0.995	2.706	0.533
	PIM	-0.008	0.572	1.771	0.409
	YER	-0.015	0.844	2.325	0.489
	CDA	0.198	0.849	2.337	0.490
3	Intercept	0.276	0.815	2.259	
	KP	0.056	0.053	1.055	0.263
	FMR	0.008	0.976	2.654	0.528
	PIM	-0.012	0.338	1.402	0.341
	YER	-0.033	0.620	1.859	0.423
	CDA	0.349	0.699	2.012	0.446
4	Intercept	0.872	0.481	1.618	
	KP	0.068	0.020	1.020	0.255
	FMR	-0.437	0.207	1.230	0.304
	PIM	-0.016	0.252	1.287	0.317
	YER	-0.086	0.212	1.237	0.306
	CDA	0.110	0.910	2.483	0.508
5	Intercept	-0.815	0.535	1.707	
	KP	0.081	0.005	1.005	0.251
	FMR	-0.225	0.445	1.560	0.371
	PIM	-0.007	0.566	1.761	0.407
	YER	-0.056	0.386	1.471	0.354
	CDA	1.420	0.184	1.202	0.298
a	The reference category is: 1.00				

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Implications of the Forest Charges Law to Rattan-based Livelihoods of Indigenous Peoples of the Philippines

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Abstract: This policy research investigated the question: "What are the implications of Republic Act 7161 (or the Forest Charges Law) as it is interpreted, imposed, and implemented towards sustainable rattan-based livelihoods of indigenous peoples (IP) communities in the Philippines?" An in-depth review and analysis of the Act was undertaken by examining the past policies, relevant administrative orders, and memorandum circulars issued by the Department of Environment and Natural Resources (DENR) and relevant forerunner agencies. The policy performance of forest charges *vis-a-vis* collection and resource conservation targets and the perceptions of the IP communities towards RA 7161 were assessed. Results provide evidence that the provision of the Act on rattan forest charges is disadvantageous to IP rattan gatherers who usually gather the rattan raw material for the rattan value chain and play a crucial role in achieving the goals of sustainable forest management. Recommendations are provided toward creating a

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more favorable policy environment beneficial to IP practices on rattan harvesting and utilization.

Keywords: *forest charges, forest policy, rattan, indigenous peoples, livelihood, sustainable forest management*

INTRODUCTION

In many countries, natural resources belong by law to the State. The private sector, composed of companies and individuals utilizing these assets, is often regulated by government to ensure that these resources are managed for the best interest of its citizens. From an economic perspective, sustainable and equitable management of these resources requires that the resource rent be recovered by the government through policy instruments such as the imposition of appropriate taxes.

Policy instruments to guarantee sustainable management of natural resources include setting limits to the amount that can be harvested and levying fees to discourage over-exploitation. One of the overriding concerns in imposing levies is to set them high enough to capture the rent generated at the most profitable and sustainable level of production. Thus, it becomes unprofitable for the private sector to harvest at levels that deplete the resource stock.

The collection of forest charges on timber and non-timber forest products gathered from Philippine forests was affirmed through Republic Act 7161,[3] which also increased the rates relative to PD 705 (Revised Forestry Code of the Philippines). For the purpose of this study, RA 7161 shall be referred to as the "Forest Charges Law" because of its very long title[3]. Forest charges are

taxes imposed by government on individuals or groups that extract timber and minor forest products from publicly owned forest lands. Charges on forest products are part of "other taxes," which represent compulsory payments to finance government operations (Tax Reform Act of 1997).

Minor forest products, also better known as non-timber forest products (NTFPs), are subject to forest charges. NTFPs encompass all biological materials other than timber that are extracted from the forests for human use (de Beer & McDermott, 1996). NTFPs are important to people all over the world, particularly the forest-dwelling indigenous peoples (IPs) who have been using these resources since time immemorial. NTFPs do not only form part of the culture of IPs; they also support many aspects of the IPs' sources of livelihood. In addition to the economic benefits, interest in NTFPs also stems from their contribution to meeting the environmental objectives in forest areas (Razal & Palijon, 2009). These benefits serve as incentives for communities to engage in forest conservation/sustainable forest management activities.

Among the country's NTFPs, rattan ranks high in economic importance. There are around 80 species of rattan (Baja-Lapis, 2010) that can be found in the Philippines. These rattan species grow largely in natural dipterocarp stands, and to some extent, in submarginal and mossy forests. The trend in the Philippines on rattan production and year-to-year collection of forest charges on rattan (split and unsplit) from 2005 to 2011 is shown in Table 1.

Mainly because of the strength, lightness, versatility, and pliability of its stems, rattan is widely used by furniture and handicraft industries, making it an export winner for the country. Globally, Filipino furniture designers such as Kenneth Cobonpue from Cebu City have been recognized for the inspired and intricate designs of their rattan-made furniture products.

Rattan and rattan products have significantly contributed to employment, and to income and foreign exchange generation for the country (Pabuayon, 1991). Employment in the rattan industry includes those who are involved in the gathering and collection of poles from the forests, as well as those who are engaged in trading and transporting, material preparation, processing, and marketing of raw rattan poles, derivatives and split rattan, and finished rattan products.

The rattan value chain actors in the Philippines are broadly classified into (a) gatherers or cutters, (b) *kapatas*, permittees, or people's organizations (POs) as the first rattan consolidation point, (c) traders (provincial, national, and wholesale traders), and (d) manufacturers and exporters. IP gatherers are considered as the first link in the rattan marketing chain. A gatherer harvests rattan and brings it to a *kapatas,* trader, or PO (local consolidator). The *kapatas* buys rattan poles from the gatherers and sells these to a permittee or acts as a point person or local manager in the area for the permittee. A permit from the Department of Environmental and Natural Resources (DENR) to harvest rattan is required for all rattan harvesting. Traders serve as intermediaries among rattan gatherers, permittees, and manufacturers and oftentimes, they advance cash or goods to gatherers through the *kapatas* to set gatherers off to go to the wild to harvest rattan poles. The manufacturers and exporters of rattan purchase raw canes and semi-processed splits from the traders to work into their designs. The manufacturers are responsible for cultivating buyers, arranging trade credit, designing products, and controlling quality of the final products (FRAME, 2006).

Problem Statement

Indigenous communities identified the following as the most important barriers to their ability to derive sustainable

incomes from rattan pole harvesting and trading: a) lengthy permitting processes, b) cumbersome requirements, and c) high transaction costs. In addition, forest charges are considered to be one of the thorniest requirements as they tend to eat up a large portion of their income. Consequently, some IPs take the risk of bypassing this requirement and conduct their rattan gathering operations illegally, i.e., without appropriate permits and licenses. Case studies on rattan utilization in ancestral domain areas (Gatmaytan, 2004) showed the adverse impact of forest charges on the ability of the community to manage their resources in a sustainable manner. Forest charges increase operational costs of rattan cutters and other users, while correspondingly decreasing the profit from the sale of already very low-priced products. Some rattan cutters have been emboldened to bypass the taxes and evade government monitoring altogether.

Technocrats in government generally pay little attention to the importance of NTFPs to the local and national economy. As such, the production and utilization of NTFPs are overlooked in the policy making and planning process, thereby neglecting the many benefits that can accrue from these resources, particularly in reducing poverty among upland dwellers. Long-held perceptions on NTFPs need to be corrected, as current trends reveal the potential of NTFPs to contribute to upland community development.

These suggest the need for a more in-depth examination of government policies on forest charges, on how much should be reasonably imposed, and whether their collection fulfills the purpose and objectives set by the government to protect, conserve, and develop forest resources.

This policy research study investigated the question: "What are the policy implications of RA 7161 (referred to in this study as the Forest Charges Law) as it is interpreted, imposed, and

implemented towards sustainable NTFP-based livelihoods of indigenous peoples' communities in the Philippines?"

The specific objectives of the study are:

1) to undertake an in-depth review and analysis of RA 7161 by examining the following: past policies related to forest charges and enacted prior to RA 7161 as well as relevant administrative orders/memorandum circulars that provided guidance in implementing forest charges collection for NTFPs;
2) to examine the policy performance of NTFP forest charges (in terms of its revenue collection and fund utilization);
3) to determine the perception of IP communities towards RA 7161 in terms of their awareness, understanding, and social acceptability of paying forest charges for NTFPs; and
4) to provide recommendations geared towards creating a more favorable policy environment for NTFP utilization beneficial to the IPs.

METHODOLOGY

A qualitative research approach was utilized including (1) content analysis to examine the aspects of the Forest Charges Law as well as related policies, and (2) interview of selected IP communities to assess their perception of the implementation of RA 7161 and its impact on their livelihood.

Secondary data were gathered through desk reviews of the various polices, implementing rules and regulations (IRRs), department administrative orders (DAOs), and memorandum-circulars (MCs) as well as historical data sets of forest charges collection and utilization by the DENR.

Primary data were gathered through key informant interviews (KIIs) from individuals, communities, and traders involved in the extraction and/or harvesting of NTFPs, particularly rattans in the provinces of Quirino, Mindoro Oriental, Palawan, and the CARAGA region. The analytical framework examined aspects such as legislative basis (previous laws that have provisions on forest charges collection), policy performance, its relevance, as well as the socio-political acceptability of the policy as perceived by the indigenous peoples.

RESULTS AND DISCUSSION

Forest Charges and Forest Revenue Systems

Forest revenue systems comprise a key component of forest sector policy in most countries. The policy revenue system includes a wide range of levies, from area fees and stumpage fees to sales, income, and export taxes. Its primary intention is to generate revenues for government from forests through a system that is designed to capture the resources' "true value." The levies and fees are imposed on private firms and individuals in exchange for the right of access to resources in state-owned forests, particularly timber and in some cases, non-timber forest products. Most forest revenue systems aim to raise income for the public purse. They are also seen as economic signals to private producers and land owners, primarily because of their influence on the prices at which resources are made accessible.

There are continuing efforts in various countries to reform forest revenue systems by linking forest revenue collection to forest management costs. These efforts include the following schemes (Landell-Mills & Ford, 1999):

a) *User fees and service charges.* This is considered as the most direct linkage wherein the forest authority collects user fees or service charges to cover the costs of providing specific services to the private sector. Some countries that have adopted cost recovery to pay for particular forest services include Honduras, Latvia, Bolivia, Finland, and Ghana.

b) Establishing a forestry fund. A fund is set up that is dedicated to forest management and development and is financed by revenue from forest charges. A range of 10 percent to 25 percent of stumpage sales tax is allocated for forest rehabilitation. This is practiced in countries such as Slovenia, Brazil, Indonesia, Malaysia, India, and Honduras. In a few cases, governments devolve responsibility for forestry to a financially autonomous body with revenue-raising powers (where there is forest authority corporatization and privatization).

c) *Revenue sharing with land-owning communities.* In countries where community forests are important, there has been a trend to channel all or a portion of the revenue collected by governments from forest users to landowners, as part of broader reforms to increase community involvement in forest management. This is the case in Papua New Guinea, where reforms to the revenue system have prioritized the interest of landowners. Since 1996, local communities have received 95 percent of royalty revenue, and the government has collected a Project Development Levy. In Ghana, the government is constitutionally required to return a share of timber royalties to landowners. In Mexico, *ejido* and indigenous community landowners were awarded the right to lease and sell rights to their forests, which meant that they - and not the government - currently receive all the revenue from third party use.

Historically, governments have maintained low charges to support the development of their respective forest products industry (Landell-Mills & Ford, 1999). However, the forest revenues and forest fees have been deemed to be well below the value of the timber and other forest resources. In the Philippines as well as in other tropical countries, the low valuation of forest products, particularly timber, is believed to have promoted forest exploitation (Umali, 2005; Othman & Abdul Ghani, 2003; Ma & Broadhead, 2002).

Despite rates that are perceived to be lower than the resources' "true value", governments in many countries, in general, still encounter difficulties in implementing their respective forest revenue systems. This is evident in disproportionate collections relative to volume extracted, arrears in payments by resource users, and alleged corruption among the ranks of those tasked to collect the fees (Gillis, 1992; Salim & Ulisten, 1999 cited in Gray, 2002). Literature and anecdotal evidences have shown that there is widespread avoidance and abuse, "side" payments, illegal logging, and illegal NTFP extraction activities. Thus, it is contended that forest revenue systems offer very little incentive for stakeholders "to harvest timber efficiently or to use the forest sustainably" (Gray, 1983; Repetto & Gillis, 1998; Grut, Gray, & Egli, 1991; Gray, 1996; Karsenty, 2000 cited in Gray, 2002).

On the other hand, increased forest charges do not appear to automatically lead to accrual by the government of the forest rent. In Malaysia, for instance, a system that leaves high value timber in the forest (also known as high-grading) to evade forest charges on the more expensive timber had reportedly been practiced (Othman & Abdul Ghani, 2003). Avoidance of high forest charges and other fees associated with getting rattan harvesting permits also appear to be the rule rather than the exception for some indigenous Filipino communities. These IPs engage in

"recycling" of documents or "misdeclarations" such as underreporting of shipment volumes and other illegal practices to realize better returns for their harvests (Gatmaytan, 2004; Aquino, 2007).

Philippine Forestry Policies

As per Section 3, Article XII of the 1987 Philippine Constitution, forest or timberlands cannot be alienated. As such, their management, protection, conservation, and development remain a major responsibility of the government. Executive Order No. 192 issued in 1987 created the DENR as the main government body vested with the powers that relate to the use and preservation of all natural resources including the forests and the goods and services therein.

The DENR can enter into different forms of tenurial arrangements with private individuals, corporations, communities, and indigenous people's groups to manage and develop limited areas of forestlands in exchange for the rights to utilize the natural resources therein. In the absence of an updated forest law, the rights to utilize forest resources are still defined by Presidential Decree 705 (Revised Forestry Code of the Philippines). This decree provides that the utilization of forest resources is subject to the grant of a license with a fixed duration and the payment of corresponding fees, including forest charges.

After the 1986 People Power Revolution, a string of forestry -related executive orders (EOs) pertaining to the management of the country's forest were issued. In 1987, EO 273 entitled "Adopting a Value-Added Tax, Amending for the Purpose Certain Provisions of the National Internal Revenue Code and for Other Purposes" was signed by then President Cory Aquino. Also in 1987, EO 277 entitled "Amending Sec. 68 of PD 705, as amended,

otherwise known as Revised Forestry Code of the Philippines, for the purpose of penalizing possession of timber or other forest products without the legal document required by existing forest laws, authorizing the confiscation of illegally cut, gathered, removed and possessed forest products and granting rewards to informers of violation of forestry rules and regulations" came into effect.

In the National Forest Assessment: Forest Policy Analysis, Carandang (2005) pointed out that while most of the provisions of PD 705 were considered to be operational, there had been major changes in policies resulting from a maze of decrees, orders, directives, and letters of instruction, circulars, and memoranda that have influenced forest governance in the country. While there has not been any major legislated forestry sector policy in the Philippines, the existing overarching policy has remained the four decades-old PD 705.

When Republic Act 7161 for a component aspect of the forestry sector was enacted in 1991, it was viewed somewhat as suggestive of skewed priorities as it emphasized the need for revenue generation derived from harvesting timber and non-timber resources. On the other hand, efforts to enact the Sustainable Forest Management Act or variants thereof have been underway since the late 1980s but have been, to date, unsuccessful.

Legislative Basis for the Collection of Forest Charges

Pre-RA 7161 policies. From the time the country was held as an American colony, certain laws with specific provisions had been used as basis for collecting forest charges. The 1904 Forest Act (No. 1148) regulated the use of public forest and forest reserves in the Philippine Islands. The enactment empowered the Philippine Bureau of Forests (under the Department of Interior) to collect for

the government certain fees for harvesting timber and other products from the forest.

Section 12 of the Forest Act of 1904 provided that:

> *"…On all the gums and resins and other forest products gathered or removed from any province there shall be paid on the actual market value thereof ten per centum…"*

Before the issuance of PD 705, Forestry Administrative Order No. 11 of 1961 authorized the collection of forest charges that covered different types of fees for various licenses as well as bonds required of those applying for permits to extract both timber and minor forest products.

One year after the fall of the Marcos regime, the newly organized DENR issued Department Administrative Order 80 series of 1987, which laid out regulations governing the measurement, assessment, and payment of forest charges on timber and other forest products. Among the salient provisions in DAO 1987-80 are the categorization of timber species into four major groups, fixing of prescribed amount of forest charges on different forest products, the procedure for payment, and penalties for violations.

Republic Act 7161. Republic Act 7161 was enacted in October 1991, which prescribed higher rates to be collected as forest charges from those who cut and gather timber and NTFPs. The payment of forest charges was in lieu of the administrative charge on the environment and other fees and charges imposed thereon. The collection of forest charges, therefore, has effectively become a tax imposed by government on individuals or groups that "extract" resources on forestlands, which are lands of the public domain.

RA 7161 departed drastically from DAO 1987-80 in terms of the imposed rates, following suggestions from donor governments that the forest charges were too low and did not sufficiently cover the environmental cost of extracting forest resources. Thus, for timber, the forest charges had been pegged at 25 percent of the actual FOB market price. For NTFPs, Section 5 of RA 7161 "prescribed that all other forest products of forestland such as rattan, gums and resins, beeswax, gutta-percha, almaciga resin, and bamboo shall be charged at 10 percent of the actual FOB market price." A summary of relevant provisions of RA 7161 can be seen in Table 2.

System of Imposing and Collecting Forest Charges

To implement RA 7161, the DENR issued in various years, the following administrative orders: DAO 1991-56, 1993-39, 1994-40, 1995-19, and 2000-63. These orders imposed the specific charges for different groups of timber and non-timber species based on their FOB market prices. RA 7161 further stipulates that forest charges should be adjusted by the DENR Secretary on a yearly basis depending on the actual FOB market prices of forest products. These forest charges are subject to the recommendations by an inter-agency committee that the DENR Secretary was empowered to create.

In principle, the charges are pegged at the market prices which RA 7161 has promulgated to be the FOB price of the different forest products. The FOB price is taken as the weighted yearly average of monthly prices by all the monitoring stations per island group (i.e., Luzon, Visayas, and Mindanao). The designation of different price monitoring stations in different DENR offices across the country was based on price differences that exist among island groups. This would then be reflected through different forest charges rates that would apply depending on the location of the source of timber and NTFPs.

A careful look at the rates of forest charges suggests that over the years, there had been little or no rate differences among the regions. The government sets fixed amounts for all types of forest products, which could not be promptly adjusted with fluctuations in market prices. In fact, current forest charge rates were still based on the 1995 DAO, which were presumably based on the 1994 FOB market prices.

Judging from the number of DAOs issued, the rates have only been revised five times since the passage of RA 7161, or after more than 20 years. This is a contravention of Section 6 of RA 7161, which stipulates that the actual FOB price of forest products, from which forest charges are based, should be determined on a yearly basis by a committee. The committee would consist of the DENR as the lead agency, and would include representatives of the NEDA, the DTI, the BIR as well as the wood and furniture industry and consumer sectors. Perhaps, the difficulty of convening such a group annually has prevented the yearly issuance of a DAO that prescribes forest charges.

The infrequent issuance of a DAO on forest charges may be acceptable during periods when actual prices of forest products are high. Since the market has, for the most part, been negatively affected by the global recession, then the forest charges had become disproportionately high relative to current prices in recent years. The situation is worse in the case of NTFP gatherers, because the practice of collecting forest charges is to deduct a fixed amount representing the forest charge from the farm gate price of their produce. They are virtually helpless when traders tell them that the market price is low. This would mean lower net payments or farm gate prices for their products albeit the forest charges deducted would remain pegged to the value based on a relatively high FOB.

At the field level, the system of assessing forest charges based on the volume of timber and NTFPs harvested, affords opportunities for official abuse and manipulation by authorities mandated to perform such role. DENR scalers or duly authorized forest officers are tasked with estimating volumes and kinds of harvested forest products, which serve as the basis for amount of forest charges to be paid. Among the illicit actions reported that stem from officials performing functions associated with assessing forest charges include misdeclaration, under-declaration, and intentional wrong identification of species. An example of misdeclaration is when harvested forest products are claimed to be obtained from planted sources and not from natural forests. Under-declaration involves reporting lower volumes than what were actually harvested or transported. It is also anomalous to identify a premium species as a lesser value species from which lower forest charges would be collected. These illegitimate actions often could not happen without the connivance of government officials and the clients they serve.

If the government sticks with the volume-based approach for determining forest charges, it should also introduce improvements in measurement capability, product classification and identification, document tracking in the field, and monitoring systems to minimize, if not eliminate abuse, by duly authorized officials.

Rattan trading at the community level is based on at least 10 different sizes: $^{5}/_{6}$, $^{3}/_{8}$, $^{7}/_{16}$, $^{1}/_{2}$, $^{5}/_{8}$, $^{3}/_{4}$ for poles that are less than 2 cm in diameter, and $^{7}/_{8}$, 1, 1 $^{1}/_{8}$, and 1 $^{1}/_{4}$ for poles having diameters larger than 2 cm. This means that prices received by rattan harvesters will depend on the actual size of the rattan that they collect. The smaller the size, the lower is the price received. Small diameter rattans like *sika* and *arurog* are desirable for woven parts and for accents. On the other hand, large diameter rattans

such as *palasan* and *ditaan* are used for frames and provide the strength and stability of rattan furniture.

However, for the purpose of imposing forest charges, DENR classifies unsplit rattan into only two categories: below 2 cm and above 2 cm. The department uses a fixed forest charge of PhP 0.65 for those below 2 cm in diameter and a corresponding fixed amount of PhP 0.85 for poles bigger than 2 cm. This practice is unfair to rattan harvesters who are paid less for the small-diameter rattans yet are taxed the same forest charge for their produce regardless of actual diameter.

Table 3 shows the comparison in the computation of the ratio of forest charge to actual price received by the harvesters for different sizes of rattan poles for the two diameter categories. Since every batch of rattan poles harvested will always be a mixture of different sizes of rattans, rattan harvesters would always be on the losing end when selling their poles. Their incomes are further reduced by the uniform amount of forest charge imposed on their produce.

Table 3 also shows that with $^{5}/_{16}$-inch rattan pole, the rattan gatherers would only get paid PhP 2.00 for it. The trader pays for every pole according to their individual sizes. However, the government scaler, who assesses forest charges, would merely count all the poles having diameters less than 2 cm. Consequently, the government scaler would charge the lot of rattan poles that are less than 2 cm in diameter with PhP 1.95 for each and every pole. This means that the gatherer actually pays an actual rate of 98 percent as forest charge for his/her $^{5}/_{16}$-inch poles, which is much higher than the 10 percent prescribed in RA 7161.

All other sizes, except the 1 $^{1}/_{4}$ inch sized poles, are actually charged more than 10 percent as a result of the practice by DENR

scalers of charging rattan poles based only on two-diameter classes. A 3-m long, 1 $^1/_4$-inch pole will fetch a selling price of PhP 26, with a forest charge of PhP 2.55, or 10 percent of its actual selling price. But this is the only size for which the forest charge is consistent with the law. Thus, as the forest charges undervalue the rattan poles and consequently reduce the gatherers' incomes from their harvest, this practice is grossly disadvantageous to rattan harvesters. If the administrative order is not amended and the practice of having only two-diameter classes would continue, this might lead to unsustainable harvesting of rattan resources. To offset lost income as a result of disproportionate forest charges, individual IPs may resort to overharvesting to maximize cash incomes from this livelihood activity. Under such a scenario, the purpose of imposing forest charges as "resource rent" in order to provide a mechanism for sustainable forest management is defeated.

Careful analysis of specific provisions of the various DAOs on forest charges reveal that there have been efforts in subsequent orders to institute reforms and changes to address some of the flaws noted in the previous DAOs. However, such amendments are not sustained and even nullified when a new administration takes over. Besides, there exist inconsistencies in interpretation of an administrative order at the field level. Administrative policy reforms not supported by legislation make changes impermanent and subject to the whims of incoming officials.

Policy Performance of NTFP Forest Charges

In terms of policy performance, the collection of forest charges on unsplit rattan has contributed significantly to the total amount of forest charges for NTFPs, accounting for about 87 percent of total NTFP forest charges between the years 2005 to 2011 (Table 1). However, Razal (2009) found out that in some

years, there have been inconsistencies between the reported rattan production volumes versus the amount of NTFP forest charges collected by the government. Discrepancies can be partly attributed to anomalous practices mentioned earlier, such as misdeclaration and underreporting in the volume of harvest and recording of NTFP forest charges. These are suggestive of the vulnerability of the forest revenue system for NTFPs to fraudulent practices. Hence, the government should exercise greater vigilance in monitoring and in processing information received from the field offices. It should implement reforms to stop activities that undermine the forest revenue system.

Over a 30-year period from 1976 to 2007, the total amount of PhP 174,455,260 or about 2.5 percent of the total forest charges, was collected from timber and NTFPs. The forest charges on timber amount to tens of billions of pesos, showing the meager contribution of NTFPs to the total forest charges revenue. The study undertaken by Razal, Dolom, Villanueva, Camacho, & Peralta (2005) asserted that "government statistics on forest charges show that NTFPs contribute a seemingly insignificant amount to the national economy compared to timber, which provides between 93 to 99 percent of the annual figures."

In terms of fund utilization, the total forest charges collected would only account for less than one percent of transfers to LGUs. The proportion of NTFP forest charges that contribute to LGU appropriations would correspondingly be lower, estimated at a meager 0.0255 percent. Hence, the policy of exacting 10 percent forest charges on NTFPs is not only disadvantageous to the poor IPs who harvest them, but its share is also insignificant *vis-a-vis* revenues that the government could use to serve its citizens or to finance activities to protect the forest, including NTFPs.

The irony is that while the imposition of forest charge was partly designed as an instrument to insure the sustainability of forest resources, the amount is so small to make an impact on forest protection. Worse, it creates a situation that tempts IPs to harvest rattan resources in less than sustainable manner. Although small relative to government revenues, the amount that rattan gatherers forego to pay off forest charges is substantial relative to their household incomes, hence aggravating their poverty because of the limited opportunities for a living in upland areas. Apparently, NTFP forest charges as a policy is not only unable to recover resource rent, but it is also detrimental to sustainable forest management, which is one of its purported objectives.

Lessons from the Field

IP communities revealed a basic understanding of the need to fulfill obligations pertaining to the payment of forest charges. They demonstrated tacit approval of the law that prescribes the payment of charges for harvesting forest products, which they agreed should be followed. However, there is reservation on whether such payments actually accrue as net income or revenue share of the national government. One IP community's view of an "ideal situation" was when forest charges, after becoming part of the government revenue, would later trickle down to benefit the barangays.

In the interviews, the payment of forest charges did not figure with the respondents as a factor that gatherers considered when they decided on the intensity of harvesting NTFPs. However, in situations when income was much lower than expected, the IP community tended to overharvest to recoup anticipated losses.

IPs did not contest the FC rates which they have come to accept, acceding to the right of government to impose taxes at rates

it sees fit. However, the reason for the 10 percent charge on NTFPs was not clear to them, and they had no knowledge on the basis for the imposition of the 10 percent rate other than saying that it was prescribed by law. In the discussion of pre-RA 7161 policies in the present study, the Forest Act of 1904 carried a provision that stipulated a 10 percent charge on gathering forest resources such as "gums and resins and other forest products gathered or removed…" Hence, the precedent rate of 10 percent was set at a time when conditions were much different from today, but the 10 percent forest charge has remained.

IPs also appeared to have trust in the capacity of the DENR staff to properly scale NTFPs for forest charges purposes. Besides, they said that IPs themselves were the ones who would provide the declaration (information on the actual harvests), which the DENR staff generally accept as true and correct. However, some IPs conceded that "misdeclaration" could happen, especially among communities that tend to overharvest more than what was allowed in their permits.

Some IPs also lamented that in actual trading, they would actually offer traders stockpile of rattan poles with varying sizes. The traders would then buy their rattan harvest at rock bottom prices depending on individual sizes. But they are compelled to pay forest charges that were based on the "average-sized" poles, i.e., PhP 0.65 for all poles less than 2 cm in diameter and PhP 0.85 for poles larger than 2 cm in diameter.

By law, forest charges are directly levied on those who are actually engaged in extracting NTFPs. Because IPs and upland dwellers do not have cash to pay off such charges, the practice is for traders who buy the rattan poles from the gatherers to automatically deduct the assessed value of forest charges from the cash they pay out to the rattan gatherers. The businessmen-traders

then deal with the DENR field offices in the actual payment of forest charges during the process of seeking permits to transport the rattans. This creates an impression among the IP gatherers that the cash they received were only actual payments for rendered labor services in the cutting and carrying of rattan poles on their backs. This often negates the value of these resources being extracted from within their ancestral domains.

The IP gatherers preferred the middlemen to shoulder the forest charges without deducting the same from their payment in harvesting rattan and other NTFPs. This freed them from the burden of paying this amount and gave them a more decent income. The income also served as their reward for the implicit function of protecting the resources within their ancestral territory.

The on-the-spot deduction of forest charges from payments for their harvest was a difficult pill to swallow for most IP communities who were rattan harvesters. Some of them felt that they were indefinitely "bound" to middlemen who could provide them cash advances before rattan harvesting expeditions. They used these cash advances to buy supplies during the almost three-to-four day rattan harvesting trek to the mountains away from their families. Being already indebted to the middlemen, they become powerless in negotiating prices that are virtually 'dictated' by the middlemen. This situation has created a sense of resignation among them, especially as they had limited alternative livelihood options.

Some IP communities had misconceptions that only the government (and the unscrupulous officials) solely benefited from forest charges. They found forest charges to be irrelevant to the community's needs, and to some extent, even inimical to overall community well-being. Hence, community representatives have suggested decreasing the rates of forest charges to scrapping it altogether.

CONCLUSIONS

IP communities play a crucial role in the country's forest management systems given government's limited capacity to protect the forestlands. For performing such a role, IPs must be provided with rewards and even given incentives for their contribution in achieving the goals of sustainable forest management.

A comparison between RA 7161 and a colonial law on forestry in the Philippines, the Forest Act of 1904, however, showed that the country still largely subscribes to the provisions laid out in the latter, which formed the basis for subsequent regulations on forest charges.

For IP communities dependent on the forest for survival and livelihood, such a colonial policy is unsuitable to their culture, traditional laws, and indigenous knowledge, skills, and practices (IKSPs).

Specific provisions in the DAOs under RA 7161 showed that even though the DENR undertook some policy reforms, these changes have been made at the administrative level and were easily amended or nullified by a new administration. Further, interpretations varied at the field level, and these were usually detrimental to the IP stakeholders. Some field-level officials even willfully misinterpret the policies when policy reforms are not supported by legislation.

The share of NTFP forest charges in government revenue is rather small, contributing little to government operations. The government probably even spends more to maintain the salaries of officials tasked to assess the value of NTFP harvests. Further, forest charges impinge heavily on the take-home income of IP

communities. To offset such losses, IPs tend to overharvest and sometimes, even collude with government officials in cheating by misdeclaring or underdeclaring their harvest. These practices negate the government's ability to recover resource rents. Thus, other sectors of society should subsidize initiatives and programs that are geared towards forest conservation and sustainable forest management.

The 10 percent forest charge on NTFPs based on the outdated Forest Act of 1904 coupled with evidence gathered from the field point to a deficient policy on NTFP Forest Charges. Hence, current provisions of RA 7161 should also be amended to make it more advantageous to IPs in terms of allowing them to get a fair share of their labor, and to be a more effective tool for the government to recoup resource rent and protect the forest.

RECOMMENDATIONS

This policy research study subscribes to Molintas' (2004) recommendation, which stressed thus: "For many indigenous peoples, the state's development policies have not worked in their favor. In the first place, these laws have always been biased against indigenous concepts of ownership. Perhaps taking a step backward, to look once again at these state-sponsored laws, to be able to discern what to reform in these legal texts, is but proper. The IPs have done more than enough to adjust or even to work within these laws. Now it is time to attempt another approach – to reform the legal texts to meet the needs of the indigenous peoples."

Specific recommendations are the following:

1. DENR needs to develop a tool/system for appropriate and fair assessment of forest charges that will be beneficial to the IPs and other players in the rattan value chain. The

DENR, in particular the Forest Management Bureau, must pay greater attention to ensuring greater reliability of the data on rattan production as this affects the sustainability of forest resources.

2. The government should improve the mechanism on how forest charges are determined. Umali (2005) stated: "The current available financing mechanisms dealing on collection of forest charges and fees, trust funds, and other plough-back mechanisms should be evaluated as to collection efficiency, impact on beneficiaries, and the use or re-investment in the forestry sector."

3. The DENR should evaluate other means to generate funds for forest conservation and protection, highlighting the benefits that forests provide for other sectors of society, so as not to rely on forest charges, especially on NTFPs. Forest charges, especially on NTFPs impinge on the livelihoods of forest-dependent people. Other countries' experiences can be explored such as that of Papua New Guinea, Ghana, and Mexico in putting in place forest revenue schemes (Landell -Mills & Ford, 1999). These may include revenue sharing with local communities as this is in line with the government's thrust on community-based forest management (CBFM).

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END NOTE

[3] An Act incorporating certain sections of the National Internal Revenue Code of 1977, as amended, to Presidential Decree No. 705, as amended, otherwise known as "The Revised Forestry Code of the Philippines," and providing amendments thereto by increasing the forest charges on timber and other forest products

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TABLES

Table 1. Yearly production of, and forest charges on rattan (solid and split) in 2005-2011 (Source: FMB, 2005-2012)

YEAR	PRODUCTION OF RATTAN		FOREST CHARGES ON RATTAN (PhP)
	Split rattan ('000 kg)	Unsplit rattan ('000 lineal meters)	
2005	13	12,970	9,111,214 (99.1)[a] (7.2)[b]
2006	5	9,773	6,129,723 (96.0) (3.2)
2007	14	4,888	3,531,963 (90.5) (2.0)
2008	18	5,151	3,227,295 (89.5) (2.0)
2009	34	3,102	2,382,096 (81.6) (2.25)
2010	3	3,757	2,499,770 (78.2) (1.6)
2011	35	4,515	2,622,384 (71.9) (10.9)

[a] as percentage of total forest charges on NTFPs

[b] as percentage of total forest charges on roundwood

Table 2. Summary of relevant provisions of RA 7161

SECTION	RELEVANT PROVISION
Section 3 - Charges on Timber Cut in Forestland	Collection of charges on each cubic meter of timber cut in forestland, whether belonging to the first, second, third, or fourth group, twenty-five percent (25%) of the actual FOB market price based on species and grading. For pulpwood and matchwood cut in forestland, forest charges on each cubic meter shall be ten percent (10%) of the actual FOB market price.
Section 5 - Charges on Minor Forest Products	Rattan, gums and resins, beeswax, gutta-percha, almaciga resin, and bamboo shall be charged at ten percent (10%) of the actual FOB market price.
Section 6	Actual FOB market price of forest products is annually determined by the DENR Secretary through a committee composed of representatives from the DENR; the National Economic and Development Authority (NEDA); the Department of Trade and Industry (DTI); the Bureau of Internal Revenue (BIR); the wood and furniture industry; and consumers sectors. This committee will formulate the criteria and/ or guidelines in the determination of the actual FOB market price to be used as the basis for the assessment of the *ad valorem tax* taking into consideration production cost (developing cost, contingencies, and miscellaneous cost), species and grade of timber and forest products gathered within public forestlands, alienable and disposable lands and private lands. Forest charges collected shall be in lieu of the administrative charge on environment and other fees and charges imposed thereon. Planted trees and other forest products harvested from industrial tree plantations and private lands covered by existing tiller or by approved land application are exempted from payment of forest charges.

Table 3. Comparison of percentage of forest charges at actual sizes and actual buying prices vs. percentage of forest charges (FC) at average sizes and average prices

AVERAGE SIZE (as per RA 7161)	BELOW 2 cm						ABOVE 2 cm			
Prescribed FC per linear m	PhP 0.65						PhP 0.85			
Actual FC per pole (1 pole = 3 linear m)	PhP 1.95						PhP 2.55			
Actual size (in inch)	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1	1 1/8	1 1/4
Actual size (in cm)	0.79	0.95	1.11	1.27	1.59	1.91	2.22	2.54	2.86	3.18
Actual buying price (in PhP) of rattan poles	2	3	3	4.86	6.25	11.17	11.75	14	20.25	26
FC as a percentage of the actual price of each pole	98%	65%	65%	40%	31%	17%	22%	18%	13%	10%

Sources: Gatmaytan (2004), FRAME (2006), Aquino (2007), and DAO 1995-19

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Community Participation in the Namha Catchment Area Development Project in Luang Namtha, Lao People's Democratic Republic

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Abstract: The study determined the nature and extent of community participation in the planning, implementation, and monitoring and evaluation phases of the Namha Catchment Area Development Project at the village level in Luang Namtha District, Luang Namtha Province, Lao PDR. It also determined the factors that affected community participation and the latter's relation with the attainment of short-term and long-term goals of the project. A total of 120 respondents from Nam Gnaene and Namha villages in Luang Namtha district were selected randomly using the Slovin's formula. Data were gathered through individual interviews and analyzed using descriptive statistics, Pearson Chi square test, and multiple regression analysis. Results showed that community participation in the various project phases at the village level was

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generally of the cooperation type, a form of genuine participation. The level of community participation of the households was highest in the planning phase, followed by the implementation phase, and lowest in the monitoring and evaluation phase. A total of 16 independent variables (age, educational attainment, household size, household income, labor capacity, land size, decision-making, project perception, leadership, communication, resources, power structure, community cohesiveness, policies, training, and incentives) were found to be significantly associated with the nature of community participation in the project. The nature of community participation in the project was significantly associated with the attainment of long-term and short-term goals of the project. Suggestions are provided for planners, implementers and researchers of community participation in agriculture and rural development projects in Lao PDR.

Keywords: *community, participation, development project, types of participation*

INTRODUCTION

Participation has become a catchword in the lexicon of development today. After capital-centered development was found to be insufficient for improving the lives of marginalized people, people's involvement in the development process was considered as an alternative approach to development. Phrases like "people-centered development", "participatory development", "participatory management", and "alternative development" were developed. Theoretical understanding of these alternative approaches was built by a considerable number of authors since the 1970s. One idea that has emerged from the major reappraisal of development is the need for greater participation of rural people in the development process (Oakley, 1991).

The participatory approach, which has become a popular approach/strategy in third world countries, have different names and mostly applied in the rural and agricultural development.

Participation is interpreted in different ways by different authors. Uphoff (1995) defined participation as the involvement of a significant number of persons in situations that enhance their well-being. Constantino-David (1982) stated that participation is the mental and emotional involvement of persons in group situations that encourage them to contribute to the group's goals and share responsibilities for them. Meanwhile, Honadel (1980) saw participation as a necessary condition for any meaningful development effort. In the development process, participation implies motivating individuals to take the initiative and mobilizing people to work for overall societal goals. Participation also includes the allocation of resources to achieve them and the voluntary execution of resulting programs and projects.

Castillo (1983) stated that people's participation in the institution and systems that govern their lives is a basic human right and is also essential for economic development. Rural development strategies can realize their full potential only through the people's active involvement, including the least advantaged strata, in designing policies and programs and in creating institution for implementing them.

According to Khan (1993), there are four kinds of people participation in the community development process. They are 1) participation in decision-making; 2) participation in project/ program implementation; 3) participation in the benefit; and 4) participation in evaluation. He also stated that there are three indicators for the participation of women: 1) membership in an organization; 2) attendance in community activities; and 3) training received in income-generating projects.

Khieu (1995) stated that authentic participation should heighten people's awareness of values, issues, and the possibility of making choices. It should influence the content of development, generate new ways of doing things, and also safeguard the people's right to an equitable share in the fruits of development. It remains an elusive aspiration, but once it becomes a reality, it may well in the end prove the central requisite for development, enabling a society to function over the long-term for the well-being of its members.

Community participation is a new approach and strategy in agricultural and rural development programs in the province of Luang Namtha where over 80 percent of the country areas are mountainous. Over 55 percent of the people in Luang Namtha district are in the upland and about 34 percent of them are farmers. Many households survive predominantly by subsistence. Difficulties are especially acute for ethnic minorities in the northern uplands where over 20 percent of the population are cut off geographically and by language from other parts or groups.

With around 85 percent of the population of Lao PDR living in the rural areas and approximately 90 percent of them relying on agriculture almost exclusively for their livelihood, numerous institutional reforms have been carried out. A turning point was in agricultural and rural development.

Many rural development projects have been implemented by the government in cooperation with other international organizations and non-government organizations (NGOs) in the province. With government funds, the integrated rural development program of Luang Namtha government was conducted beginning in the 1990s. In the context of innovation, some approaches/ strategies have been promoted in the rural development projects. Community participation approach has been considered as a key

strategy for planning, implementing, and evaluating the rural development program. The successes and failures of these rural development projects depend on this approach/strategy where farmers/households have a stake in the projects.

The high growth rate achieved by the Luang Namtha district since the introduction of economic reforms after the mid-1980s has resulted in a steady decline in poverty. The incidence of poverty shrank from about 46 percent in 2005 to about 33 percent in 2008 (Country Report No. 05/393, 2010). Yet, the district remains as one of the poorest and least developed in Luang Namtha province. Although social indicators have also shown an improvement, they are still among the lowest in the region. This is so because the attainment of the living standard objective was a longer-term objective and may be realized through time.

The Luang Namtha district is more rural in character than any other district in the province. More than three quarters of the total population live in these areas and depend on agriculture and natural resources for survival. Poverty is particularly concentrated in rural areas. While agriculture is the mainstay of the district's economy, farming is largely practiced at a subsistence level. A substantial amount of the district's mountainous terrain is suitable for cultivating crops and productive conditions for farmers are generally good.

Objectives of the Study

The general objective of the study was to assess the community's participation in the Namha Catchment Area Development (NCAD) project towards poverty alleviation in Luang Namtha district, Luang Namtha province, Lao PDR. Specifically, it aimed to: 1) describe the characteristics of the household participants and the community in the NCAD project; 2) determine

the project organization support to people's participation in the NCAD project; 3) discuss the nature and extent of participation in the planning, implementation, and evaluation of the project; 4) determine the factors that affect community participation in the NCAD project; and 5) assess NCAD project's attainment of poverty alleviation goals in rural development.

METHODOLOGY

The NCAD project covered nine villages from two districts of Luang Namtha and Viengphoukha in Luang Namtha province. The study, however, focused only on two villages that participated in the project in Luang Namtha district, namely: Nam Gnaene and Namha villages (Figure 1). The villages have a total land area of 1,895 square kilometers populated with around 2,211 people in 492 households.

The respondents were randomly drawn from the number of beneficiaries. The total number of respondents was determined using the Slovin's formula (Sevilla, 1993) with five percent (5%) margin of error. Of the 145 household beneficiaries in the two villages, 120 respondents were selected using stratified random sampling with the villages as the strata.

Primarily, coordination with concerned government agencies was done. Necessary communication letters were prepared regarding the matter. Primary data were gathered through personal interviews of the respondents using a structured questionnaire, which was translated from English into Lao language. The interview schedule was pre-tested to 15 members of the Thongchai village in Luang Namtha district, who were not part of the sample for its reliability. Based on the results of the pre-test, changes were made on the interview schedule before the actual data gathering.

Three enumerators were hired to assist in gathering the primary data. An orientation was conducted among the enumerators for them to be familiar with the research instrument. Secondary data were obtained from NCAD project reports.

The results of the survey were analyzed using descriptive and inferential statistics. Descriptive statistics included frequency, percentage, means, range, and standard deviation. Inferential statistics were used to determine the relationship between variables with factors on community participation and NCAD project activities and goals as the dependent variable.

The nature of participation was determined based on the participation model by Deshler & Sock (1985). There are two types of participation, namely: pseudo and genuine participation. Pseudo participation consists of two types: domestication and assistencialism, while genuine participation involves cooperation and empowerment. In this study, types of participation were measured through responses to situations that describe the types of participation under the pseudo and the genuine participation. The responses to the questions were in four choices representing domestication, assistencialism, cooperation, and empowerment. The nature of participation was determined with the use of a set of categories of participation as follows:

0.1 - 0.5 domestication	0.6 - 1.5 assistencialism
1.6 - 2.5 cooperation	2.6- 3.0 empowerment

To determine the association/relationship between the independent variables and the dependent variables, the non-parametric Pearson Chi-square test using an alpha of 0.05 was employed. In cases where the Pearson Chi-square may not be a valid test, the P-value of the Fisher's exact test was used for a more accurate value. The Phi value was used to determine the intensity or strength of relationship.

RESULTS AND DISCUSSION

Description of the Study Areas

The Namha Catchment Area Development Project (NCADP) was established as a 'pilot project'. The project's budget, which came from the Asian Development Bank (ADB) and German Agro Action (GAA), totaled USD 471,843.70. Its overall objective was to support the target villages to adopt sustainable systems of sedentary agricultural and forest land uses that alleviate poverty through enhanced food and income security. At the same time, these sustainable systems will conserve the biodiversity habitat and protect the watershed. Land development with appropriate skills training is believed to be the key to establishment of sustainable systems of agriculture/forestry (Final Report No. TA 4434, Namha Catchments Area Development Project, 2008).

The NCAD project covered nine villages: seven in Vienphouka District and two in Luang Namtha District. The two villages in Luang Namtha District are Nam Gnaene and Namha. In terms of area and population, Nam Gnaene is larger compared to Namha. The former's agricultural land and forest area are likewise larger than the latter. However, more households (44%) from Namha participated in the project than in Nam Gnaene (26%) (Table 1).

The respondents from Namha are relatively older than the respondents from Gnaene as shown by their mean age of 45 and 42, respectively. In both villages, most of the respondents have finished elementary, but the mean year of schooling is higher in Gnaene (5.5 years) than in Namha (3.6 years). Majority of the respondents belong to the Taidan ethnic group, while those from Namha are from the Khmu tribe. In both villages, the average family size is four. The average income of the respondents from Nam Gnaene is

relatively higher at 8.2 million LAK compared to those in Namha at 6.5 million LAK (Table 2). However, both groups belong to the moderate income category.

Nature and Extent of Participation in NCAD Project Activities

The nature of community participation in the NCAD project was based on the respondents' responses to situations that reflect the types of the participation in three phases (planning, implementation, monitoring and evaluation) of the project. For each of the project phase, four to five concerns were identified where community participation could be elicited.

Community participation in the project was based on the Deshler and Sock's framework of participation (1985), which reflects the types of participation categorized on the basis of the degree of control exerted by participants. The metaphor they use to illustrate this concept is a ladder with eight rungs representing: 1) manipulation, 2) therapy, 3) informing, 4) consultation, 5) placation, 6) partnership, 7) delegated power, and 8) citizen control. Deshler and Sock then grouped these categories into four classes based on the relationship between extent of control or power and community participation in the project, namely: 1) domestication (D), 2) assistencialism or paternalism (A), 3) cooperation (C), and 4) empowerment (E). D and A are considered pseudo-participation while C and E are indications of genuine participation.

Participation is Type 1 (domestication) when power and control over a given activity are in the hands of outsider (e.g., Project Management Committee, the DAFO Extension Staff, the International and National Specialists/Experts, Administrators). Domestication is a type of participation where people in the community act or respond to what the outsiders feel or perceive as

important. Participation is Type 2 (assistencialism) when power and control still remain in the hands of outsiders. Members of the participating group receive information and are consulted, assisted, or placated.

Participation is Type 3 (cooperation) when people work with the outsiders to undertake activities intended to benefit the participants. Decision-making takes place through dialogue between insiders and outsiders. Participants are also actively involved in implementation. Power and control are shared throughout the project, which are ideally an inductive bottom-up process rather than a top-down one. Participation is Type 4 (empowerment) when people hold complete power over outsiders and are in full control of a program. This includes decision-making and administrative activities. Participation occurs at the political, social, cultural, and economic levels.

For the planning phase, the NCAD project activities included were problem analysis, goal/objective setting, decision-making, rule and regulations formulation, and yearly planning.

The respondents' nature and extent of participation in the implementation of the NCAD project was measured using four activities. These included conduct of monthly meeting, setting up of the project's organizational structure, promotion of the project, and implementation of project activities.

For monitoring and evaluation, the activities included selection of monitoring and evaluation staff, monitoring and evaluation activities, monthly financial report, and other information for monitoring and evaluation.

For each activity in the project phase, the respondents were given four choices representing domestication and assistencialism

for pseudo-participation, and cooperation and empowerment for genuine participation. To determine which type of participation the respondent was exhibiting, it was imperative that the response type of the respondent's frequent answers would fall into this category.

Planning phase. Under the NCAD project, the most important activity in the planning phase was micro-land use planning (or village/household planning) for allocated agricultural and forest land.

Normally, village and household planning were conducted through an initial meeting in the village to explain the project. This meeting was intended to raise awareness and provide motivation to the villagers so they participate in the project. It was also intended to raise awareness on the criteria for participation in various project activities, and the importance of women's participation. Further, it provided an opportunity for the villagers to choose their extension farmers and other members of the Village Management Committee. The villagers were asked to prepare a map of existing village land use, focusing on the allocated agricultural lands. Afterwards, the villagers discussed the village's situation and problems concerning land use.

Then, the Village Management Committee and selected extension farmers attend a training session on Participatory Rural Appraisal (PRA) and planning process to be used in the village. The training course provided training materials and booklets for village and household plans, which served as guidelines for the planning process.

The extension staff spent two days in the village to facilitate the participatory planning process and to provide technical information and guidance to the villagers. The first day was a participatory assessment of the existing and potential agriculture

development situation for the village's allocated agricultural lands. On the second day was a participatory assessment on the development of the general village plan.

The village extension farmers then assisted every household in preparing individual household plans. As soon as the household plans were completed, the extension farmers summarized the seed crop and seedling requirements according to species and quantity needed in developing the village nursery plan and then submitted these for the DAFO project plans.

Community participation in the planning phase focused on five selected activities, namely: problem analysis, goal/objective setting, decision-making, rule and regulations, and yearly planning for the households.

Results show that most of the respondents participated in planning activities under a genuine participation (cooperation and empowerment). More than half (59.2%) stated that they actively participated in problem analysis, goal/objective setting (94.2%), rules and regulations setting (95.8%), and in yearly planning activities (66.7%) in village project plans. Majority also indicated that the people in the community were the sole decision makers in the project activities. About one-fourth of the respondents averred that the problems were fully analyzed by the local people themselves.

As to the nature of community participation in the two villages, Nam Gnaene village (2.6 mean score) was more active in the planning phase than the Namha village (2.5 mean score). In general, community participation in the planning activities showed a genuine type (cooperation and empowerment) with a mean score 2.6 (Table 3). The participatory planning approach and the training courses might have provided the knowledge as well as motivation

for the people in the villages to participate. The role of village chief or assistant, group chief, extension staff, and extension farmers (as key persons) are important elements in making the local people activity participate in the different planning activities.

Implementation phase. Community participation in the implementation phase of the project includes involvement of the respondents in activities such as conducting meetings to discuss about the project, setting up of organizational structure of the project in the village, promotion of the project activities, and implementation of the planned activities.

Majority of the respondents (65%) indicated that they shared ideas with the Project Management Committee in the conduct of the meetings while some (20.8%) assisted in the meetings. About three-fourths (69.2%) of the respondents participated in setting up of the project organization structure. The respondents were also involved in promoting the project in the village (57.5%) and in the general implementation of the project activities (58.3%). In general, the overall nature of community participation in the implementation phase of the project was in the sphere of cooperation. There were some respondents who did the activity by themselves, which is an indication of empowerment.

Although there were different levels of community participation in the villages, the overall nature/extent of their participation in the project was in the stage of cooperation (2.5 means core). The Nam Gnaene village had a higher level of participation (2.7 mean score) in all activities in the NCAD project implementation phase.

Participation in the conduct of meetings in the NCAD project was in the nature of genuine participation in the form of cooperation (2.4 mean score). The Nam Gnaene village was more

active in this activity with a mean score of 2.5, a level of cooperation which is a form of genuine participation, while the Namha village also exhibited the same type of participation (2.3 mean score).

In setting up the NCAD project organizational structure, Nam Gnaene was again the more responsive group in this activity, showing a high level form of participation (2.6 mean score), which is empowerment. As a whole, the respondents in both villages exhibited a cooperation level of participation (2.4 mean score).

Together with the planning of the project, village meetings were held to promote the project's activities. 'Decision agriculture' was used as a technique in selecting the households to participate in the project. The selection criteria, roles, and responsibilities were also clarified for various types of village participants such as extension farmers, demonstration farmers, etc. In this activity, the respondents showed a general level of participation by cooperation (2.4 mean score).

Participation in the implementation of the project activities in the two villages were in the area of empowerment (2.7 mean score). However, the Nam Gnaene showed a higher level of participation in this activity, which is empowerment also (2.8 mean score), compared to Namha (2.5 mean score), which represents a cooperation type of participation.

As a whole (Table 4), the nature of community participation in the villages in all activities under the implementation phase reflected a genuine participation in the form of cooperation (2.5 mean score). The knowledge and experiences gained from the training courses, their active participation in the planning activities, and the participatory approaches used in promoting the project activities were the possible ingredients for their effective participation in this phase of the project.

Monitoring and evaluation phase. Monitoring and evaluation was considered an important phase in the NCAD project. Previous agricultural development projects, rural development projects, reforestation projects, and other projects in Lao PDR suffered from the implementers' lack of experience in the monitoring of project activities. Monitoring and evaluation in the project was conducted on the quantity and quality of agriculture. The DAFO staff, village extension workers, and village management committee members play an important role in the monitoring and evaluation activities of the project.

Community participation in this phase included activities pertinent to the selection of the monitoring and evaluation staff; conduct of monitoring and evaluation activities; preparation of monthly financial report; and collection of information on the activities of the project.

Majority of the respondents (60.8%) said that they were actively involved in coordinating with Project Management Committee (PMC)/outsider in the selection of monitoring and evaluation staff, in the conduct of the monitoring and evaluation activities, and in providing information for monitoring and evaluation purposes (70.8%). These activities were assessed to be at the stage of cooperation.

The villages showed community participation in the form of assistencialism/cooperation. Both villages, however, showed a mean participation score of 1.9 in the selection of the evaluation staff, which is at the level of cooperation, a lower form of genuine participation. The Nam Gnaene village had higher level of participation in the form of cooperation (1.9 mean score), while the Namha village also showed a cooperation type of community participation in selection of monitoring and evaluation staff (1.8 mean score).

In the case of monitoring and evaluation of activities such as giving information about the quantity and quality of plantation area during the duration of the project, the incentives (rice, crop, fertilizer, seedling), the rate of progress of the agricultural planting and other activities, and the overall level of community participation was at the cooperation stage (2.1 mean score). Almost both villages had the same level of community participation, ranging from 2.0 to 2.1.

The Village Management Committee was responsible for collecting information from the extension farmers and households for the preparation of monthly progress and financial reports. They classified, synthesized, and made a report to the DAFO during the regular monthly meeting. The project participants contributed and also monitored the information to the extension farmers. The participants were assisted by the Project Management Committee in the preparation and presentation of the monthly report. The mean participation score of both villages was 1.5, which reflected community participation as assistencialism, a type of pseudo-participation. There was not much difference on the level of community participation in both villages, with mean score ranging from 1.4 to 1.6.

In the case of providing information for monitoring and evaluation, results showed that the nature of community participation in both villages was of the cooperation type (2.0 mean score). The respondents (65.8%) reported that they actively coordinated with the Project Management Committee in this activity. Namha village had higher level of community participation (2.2 mean score) than the Nam Gnaene village, which was in the cooperation stage (1.8 mean score).

Overall level of community participation in the monitoring and evaluation phase of the NCAD project was at the level of

cooperation (1.9 mean score), a genuine type of participation (Table 5).

On the whole, community participation in the various phases of the NCAD project was generally of the cooperation type (1.7 mean score), a form of genuine participation, but the results showed different levels of community participation in both villages (Table 6). In general, however, Nam Gnaene village had a higher level of community participation than the Namha village. Across the three phases, participation was highest in planning, followed by implementation, and then by monitoring and evaluation.

Factors Affecting Community Participation

Correlation between independent variables and extent of community participation. Pearson Product-Moment Correlation (Pearson's r) was used to determine the degree of association of the independent variables, namely: household characteristics, community characteristics, organizational support, with extent of community participation in terms of planning, implementation, and monitoring and evaluation of the project. The level of association was reflected by correlation coefficient (r). The level of association is very weak if r value ranges from 0.01 to 0.20; weak if r is from 0.21 to 0.40; moderate if r is from 0.41 to 0.60; strong if r ranges from 0.61 to 0.80; very strong if r ranges from 0.81 to 0.99; and perfect association if r=1.00.

Household characteristics. Results showed that almost all the household characteristics were significantly associated with community participation in the planning phase of the project. Household size (r=0.67), household labor capacity (r=0.61), and household land size (r=0.61) were the three factors that had substantial positive significant association with participation in Nam Gnaene and Namha villages. Household size in the remote area

is normally dependent on the income of the labor capacity of the household. Households with higher income were more perceptible and had stronger motive to participate in the project. A strong positive significant association was noted for age of household head, while gender role perception had a fair level of positive association in both villages. Education had strong positive significant association in Nam Gnaene. This meant that the respondents who had higher educational attainment participated more in the project activities.

Household labor capacity and household size were also strongly and positively significant in the implementation phase (r=0.81 and r=0.80, respectively), and in the monitoring and evaluation phase (r=0.71 and 0.71, respectively). On the whole, both variables were also identified to have the strongest and positively significant association in all management phases of the project. All the household characteristics were all significantly associated with community participation.

Community characteristics. Results showed that the communication system was strongly, positively, and significantly associated with community participation in the planning, implementation, and monitoring and evaluation phases of the project. In general, community leadership, resources, power structure, and cohesiveness were found to be fairly strong, positively, and significantly associated with community participation in all aspects of planning, implementation, and monitoring and evaluation of the project.

Organizational support. Results showed that all the factors that are considered important such as state and local government policies in organizational support had a strong, positive, and significant association with community participation in all phases of the project. Only training and project incentives had a fair or moderate relationship with the independent variables.

In summary, correlation analysis indicated that the independent variables had a positive and significant relationship with community participation, except for decision-making, which had negative but significant relationship with community participation. The households whose decision making was composite, meaning majority of all household members were involved in decision making, tended to participate less in the project activities. This result pointed to the general nature of decision making in the household, which was either by the father or mother depending on the project activities to be involved with.

Factors that had strong levels of relationship with community participation were household size, household labor capacity, land size, state and local government policies, and communication system of the community. Variables that had fair/ moderate relationship with community participation were project perception, community cohesiveness, and incentives. The level of association of the independent variables (household characteristics, community characteristics, and organizational support) with the dependent variable (community participation) varied among different phases of the project (Table 7).

Correlation of the extent of community participation in the project with the project goals. Results show that the extent of community participation in the project planning, implementation, monitoring and evaluation, as well as in overall phases of the project management had positively significant associations with the level of satisfaction of the long-term and short-term goals of the project. Community participation had a strong level of relationship with achievement of the economic objective (r=0.75; 0.71 and 0.65), and it was strongly related to the food security objectives (r=0.64; 0.62 and 0.57). A weak but significant relationship was observed in the attainment of the living standard objective of the project (r=0.41; 0.38 and 0.37 during the planning, implementation, and

monitoring and evaluation, respectively) (Table 8). Raising the living standard of the people in the community is a longer-term objective and was not measurable at the time of the study.

Multiple Regression Analysis of the Independent Variables and Extent of Community Participation in the Project

Major factors influencing community participation in the planning phase of the project. Results of multiple regression analysis show that household characteristics such as age, gender role, educational attainment, household size, household income, labor capacity, land size, decision-making, and project perception; community variables such as leadership, communication, resources, power structure, community cohesiveness; and organizational support consisting of policies, usefulness of training, and usefulness of incentives had significant contribution to the regression effect on community participation in the planning phase in Nam Gnaene (Table 9). The combined effect/contribution of these independent variables was 98.2 percent to the total regression effect on the dependent variable community participation. Community cohesiveness did not contribute significantly to the multiple regression model. The indicators used were sense of belonging, solidarity, rootedness, and alienation. The measurement of these indicators may be refined in future studies.

In Namha, the same variables, except gender role, were contributory factors to community participation in the planning phase. Combination of these independent variables contributed 78 percent to the total regression effect on the dependent variable. For the whole village, all the variables, contributed to the total regression effect on community participation in the planning phase, with R^2 = 76.7 percent.

Major factors affecting community participation in implementation phase of the project. Results of the multiple regression analysis show that community power structure was the only variable that has not contributed to the total effect of the independent variables to community participation in Nam Gnaene and Namha (Table 10). A total of 94.5 percent (R^2 = 0.945) of the combined effect of the independent variables influenced community participation in the implementation phase of the project in Nam Gnaene village.

On other hand, gender role had no significant effect on community participation in the implementation phase of the project in Namha village. The total regression effect due to independent variables was 88.8 percent (R^2 = 0.888). As a whole, all the independent variables significantly influenced community participation in the implementation phase of the project. The results show that 92.8 percent (R^2 = 0.928) of the variables directly contributed to the total effect on community participation. Moreover, the households in the villages were assigned to implement their own plans during the implementation phase of the project.

Major factors affecting community participation in monitoring and evaluation phase of the project. Several factors had significant effect on community participation in the monitoring and evaluation phase of the project in Nam Gnaene and Namha. These included age, gender role perception, educational attainment, household size, household labor capacity, household income, land size, decision-making, project perception, community leadership, community communication, community resources, community power structure, community cohesiveness, state and local government policies, usefulness of training, and usefulness of incentives. These variables contributed 89.8 percent to the total regression effect on community participation in Nam Gnaene, and

67.3 percent in Namha (Table 11). Gender role perception was the only factor that had no direct effect on community participation in Namha.

As a whole, the independent variables except gender role had significant effect on community participation in the monitoring and evaluation phase of the project. The combined effect of these independent variables contributed 79.3 percent to the total regression effect on the dependent variable. All activities in the monitoring and evaluation phase were more concerned with knowledge of the households about social perception, procedures of financial report, informational collection, and reporting.

In all three phases, gender role did not come out as a significant contributory factor to community factors. As operationalized in this study, gender role refers to the respondents' perception about the role of men and women in the different household activities especially in agriculture. Equality in gender was attained when the women were perceived to be equal with the men on matters of household activities such as irrigation, farming, forestry, livestock, and household chores. Data revealed, however, that men were more engaged in forestry, while women were more involved in livestock raising and household chores.

Assessment of Poverty Alleviation Goals

More than half of the respondents (54%) perceived that the long-term objective, that of improving the living standard of the group minorities, has been attained satisfactorily. But more of them perceived that the short-term objectives had been achieved satisfactorily such as increasing the latter's household income (72%) and food security (67%).

On the social side, majority of the respondents felt that their understanding, knowledge, and experiences in agriculture and forestry technology as well as in rural development and gender role improved because of their participation in the project. On the whole, the respondents felt satisfied on the contribution of the project as reflected on the attainment of its long-term and short-term goals.

On the whole, the respondents felt satisfied on the short-term economic objective of the project to increase village-level incomes (3.3) and household food security (3.3). They were also generally satisfied with the long-term goal of improving the living standards of minority groups and other poor groups (3.5) and with other short-term objectives such as improving the environmental condition and social development of the community (Table 12).

CONCLUSIONS

Based on the respondents' perception, the NCAD project towards poverty alleviation contributed significantly to the improvement of the living standards of the minority groups in the Nam Gnaene and Namha villages. The households in the villages participated in all phases of the project such as planning, implementation, and monitoring and evaluation, but participation was highest in the planning phase.

The nature and extent of community participation at the village level in all phases of the project was at the level of genuine participation. Participation was in the form of cooperation in all phases of the project. However, community participation varied between the ethnic groups; the Taidam was more participative than the Khmu group. This showed that under the present socio-economic condition of Luang Namtha province, it was possible to elicit genuine participation of the households in agriculture and

rural development projects. Participatory approaches in agriculture and rural development proved their worth in mobilizing the local people for their own development.

Socio-economic, physical, organizational, and political factors both within and outside the community are needed to be able to mobilize the community people in rural development program such as the NCAD project. These factors are the household characteristics (age, gender role, education attainment, household size, income, labor capacity, land size, decision-making, and project perception); community characteristics (leadership, communication, resources, power structure, and community cohesiveness); and organizational support in terms of state and local government policies, training, and incentives. These were found to have significant relationships with the nature and extent of community participation in the context of planning, implementation, and monitoring and evaluation of the project to improve the living standards of the beneficiaries.

RECOMMENDATIONS

The perceived significance of the NCAD project of the government for the improvement of the living standards of the minorities groups and other poor groups in the villages suggests that socio-economic development programs for remote/poor areas should be promoted in selected villages in poor districts of the province.

Community participation as a participatory approach/ strategy in the NCAD project in Laos has demonstrated the important role of households as stakeholders. The government should encourage and support research/teaching on community participation approaches. This can be done through educational programs in selected universities and in the promotion of these

approaches both in theory and practice in undertaking agriculture and rural development projects in the country.

Implementers and planners should exert more effort on the monitoring and evaluation aspect by strengthening/providing short training courses on monitoring and evaluation to the project participants, especially the minority groups. In this way, the participants will develop the confidence to get involved in the monitoring and evaluation phase of the project.

Implementers/planners should consider the variables identified in this study to have significant effect on community participation in crafting their strategies/approaches to develop agriculture and rural development projects. Strengthening the education and training of the people, improvement of community facilities, and provision of incentives (especially in agricultural land allocation) are important components for improving people's participation in agriculture and rural development projects in Laos.

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TABLES

Table 1. Description of the study sites

DESCRIPTORS	NAM GNAENE	NAMHA
Area (ha)	128,500	61,000
Agricultural land	23,951	12,875
Forest land	89,283	38,498
Others	15,266	9,627
Population	1,690	521
Number of households	389	103
Number of participating households	100	45

Table 2. Socioeconomic characteristics of the respondents

CHARACTERISTICS	NAM GNAENE		NAMHA	
	No.	%	No.	%
Age (years)				
Below 30	3	3.8	2	5
31-40	40	50	10	25
41-50	21	26.3	20	50
51-60	10	12.5	4	10
Above 61	6	7.5	4	10
Total	80	100	40	100
Mean	**42.2**		**45**	
S.D.	**10.0**		**9.6**	
Range	**26-65**		**28-66**	

Table 2. Socioeconomic characteristics... (*continued*)

CHARACTERISTICS	NAM GNAENE		NAMHA	
	No.	%	No.	%
Educational attainment				
No formal schooling (0 years)	10	12.5	13	32.5
Elementary (1-5 years)	39	48.8	17	42.5
Secondary (6-9 years)	20	25.0	8	20
High school (10-12 years)	11	13.8	2	5
College (13-16 years)	0	0	0	0
Total	80	100	40	100
Mean	**5.5**		**3.6**	
S. D.	**3.6**		**3.4**	
Ethnicity/sex				
Taidan				
Male	45	66.2	4	66.7
Female	23	33.8	2	33.3
Total	68	85.0	6	15.0
Khmu				
Male	9	75.0	22	64.7
Female	3	25.0	12	35.3
Total	12	15.0	34	85.0
Household size				
3	18	22.5	4	10.0
4	24	30.0	8	20.0
5	22	27.5	8	20.0
6	12	15.0	14	35.0
7	4	5.0	6	15.0
Total	80	100	40	100
Mean	**4**		**4**	
S. D.	**1.2**		**1.2**	
Range	**3-7**		**3-7**	

Table 2. Socioeconomic characteristics... (*continued*)

CHARACTERISTICS	NAM GNAENE		NAMHA	
	No.	%	No.	%
Household income (Million LAK)				
Less than 3.7 (very poor)	3	3.8	4	10
3.7-6.3 (poor)	9	11.3	16	40
6.4-9.4 (moderate)	56	70	17	42.5
9.5-14 (rich)	10	12.5	3	7.5
More than 14 (very rich)	2	2.5	0	0
Total	80	100	40	100
Mean	**8.2**		**6.5**	
S. D.	**2.5**		**2.4**	
Range	**3.1-16.2**		**2.8-13.5**	

Table 3. Nature of participation in the planning phase of the NCAD project

ACTIVITY	NAM GNAENE	NAMHA	OVERALL
	Mean Participation Score		
Problem analysis	2.7	2.6	2.7
Goals / objectives setting	2.8	2.5	2.7
Decision-making	2.7	2.5	2.6
Rules and regulations	2.3	2.2	2.3
Yearly planning	2.7	2.5	2.6
Overall	**2.6**	**2.5**	**2.6**

Legend: 0.1 – 0.5 Domestication 0.6– 1.5 Assistencialism
1.6 – 2.5 Cooperation 2.6 – 3.0 Empowerment

Table 4. Nature of participation in the implementation phase of the NCAD project

ACTIVITY	NAM GNAENE	NAMHA	OVERALL
	Mean Participation Score		
Conduct of monthly meetings	2.5	2.3	2.4
Setting up of the project's organizational structure	2.6	2.2	2.4
Promotion of the project	2.7	2.3	2.5
Implementation of the project activities	2.8	2.5	2.7
Overall	**2.7**	**2.3**	**2.5**

Legend: 0.1 – 0.5 Domestication 0.6 – 1.5 Assistencialism
1.6 – 2.5 Cooperation 2.6 – 3.0 Empowerment

Table 5. Nature of participation in the M&E phase of the NCAD project

ACTIVITY	NAM GNAENE	NAMHA	OVERALL
	Mean Participation Score		
Selection of monitoring and evaluation staff	1.9	1.8	1.9
Monitoring and evaluation activities	2.0	2.1	2.1
Monthly financial report	1.6	1.4	1.5
Information for monitoring and evaluation	1.8	2.2	2.0
Overall	**1.8**	**1.9**	**1.9**

Legend: 0.1 – 0.5 Domestication 0.6 – 1.5 Assistencialism
1.6 – 2.5 Cooperation 2.6 – 3.0 Empowerment

Table 6. Overall nature and extent of community participation in the NCAD project

PROJECT PHASE	NAM GNAENE	NAMHA	OVERALL
	Mean Participation Score		
Planning phase	2.6	2.5	2.6
Implementation phase	2.7	2.3	2.5
Monitoring and evaluation phase	1.8	1.9	1.9
Overall Phases	**1.8**	**1.7**	**1.7**

Legend: 0.1 – 0.5 Domestication 0.6 – 1.5 Assistencialism
1.6 – 2.5 Cooperation 2.6 – 3.0 Empowerment

Table 7. Matrix of relationship between independent variables and participation in project phases

VARIABLES	CORRELATION COEFFICIENT (r)								
	Planning Phase			Implementation Phase			Participation in Monitoring and Evaluation Phase		
	Nam Gnaene	Namha	All	Nam Gnaene	Namha	All	Nam Gnaene	Namha	All
Household Characteristics									
Age	0.63**	0.66**	0.54**	0.66**	0.76**	0.70**	0.52**	0.68**	0.58**
Gender role	-0.34**	-0.09^{ns}	-0.19*	-0.33**	0.05^{ns}	-0.17^{ns}	-0.36**	-0.14^{ns}	-0.25**
Educational attainment	0.75**	0.57**	0.43**	0.77**	0.77**	0.53**	0.65**	0.62**	0.42**
Household size	0.77**	0.71**	0.67**	0.80**	0.86**	0.80**	0.71**	0.74**	0.71**
Income	0.59**	0.62**	0.42**	0.59**	0.68**	0.57**	0.56**	0.62**	0.52**
Labor capacity	0.80**	0.63**	0.61**	0.81**	0.83**	0.81**	0.77**	0.88**	0.71**
Land size	0.73**	0.59**	0.61**	0.75**	0.76**	0.75**	0.66**	0.62**	0.63**
Decision-making	-0.80**	-0.39*	-0.42**	-0.84**	-0.60**	-0.66**	-0.70**	-0.42**	-0.48**
Project perception	0.92**	0.44**	0.42**	0.84**	0.60**	0.38**	0.77**	0.47**	0.44**

Table 7. Matrix of relationship between... (*continued*)

Community Characteristics									
Leadership	0.62**	0.82**	0.58**	0.63**	0.63**	0.62**	0.44**	0.74**	0.52**
Communication	0.84**	0.75**	0.74**	0.80**	0.91**	0.84**	0.93**	0.80**	0.87**
Resources	-0.36**	-0.33**	-0.38**	-0.38**	-0.50**	-0.53**	-0.32**	-0.35**	-0.42**
Power structure	-0.62**	-0.33*	-0.45**	-0.66**	-0.50**	-0.61**	-0.55**	-0.35*	-0.48**
Cohesiveness	0.30**	0.79**	0.19*	0.27*	0.83*	0.33**	0.32**	0.78**	0.31**
Organizational Support									
Policies	0.91**	0.58**	0.76**	0.92**	0.90**	0.92**	0.80**	0.63**	0.74**
Training	0.44**	0.50**	0.50**	0.46**	0.54**	0.46**	0.27*	0.50**	0.40**
Incentives	0.39**	0.68**	0.39**	0.35**	0.80**	0.47**	0.52**	0.68**	0.52**

Legend: ns = Not significant
* = Significant at 0.05
** = Significant at 0.01

Table 8. Matrix of relationship between community participation and project goals

COMMUNITY PARTICIPATION	LEVEL OF PROJECT ACHIEVEMENT		
	Improvement of Living Standard Objective	Income Objective	Food Security Objective
Planning Phase	0.415**	0.747**	0.636**
Implementation Phase	0.379**	0.706**	0.618**
Project M&E Phase	0.367**	0.654**	0.558**

Legend: ns = Not significant
* = Significant at 0.05
** = Significant at 0.01

Table 9. Multiple regression analysis of significant independent variables with community participation in the planning phase of the project

INDEPENDENT VARIABLES	NAM GNAENE		NAMHA		OVERALL	
	Parameter estimation	Probability	Parameter estimation	Probability	Parameter estimation	Probability
Household characteristics						
Age	0.631	0.000***	0.662	0.000***	0.539	0.000***
Gender role	-0.339	0.001***	-0.093	0.284^{ns}	-0.193	0.017**
Educational attainment	0.748	0.000***	0.572	0.000***	0.431	0.000***
Household size	0.774	0.000***	0.711	0.000***	0.666	0.000***
Income	0.592	0.000***	0.618	0.000***	0.419	0.000***
Labor capacity	0.799	0.000***	0.626	0.000***	0.611	0.000***
Land size	0.732	0.000***	0.587	0.000***	0.606	0.000***
Decision-making	-0.799	0.000***	-0.387	0.007**	-0.424	0.000***
Project perception	0.919	0.000***	0.437	0.002**	0.420	0.000***

Table 9. Multiple regression analysis... (*continued*)

Community characteristics						
Leadership	0.621	0.000***	0.823	0.000***	0.577	0.000***
Communication	0.836	0.000***	0.753	0.000***	0.738	0.000***
Resources	-0.362	0.000***	-0.327	0.020*	-0.380	0.000***
Power structure	-0.625	0.000***	-0.327	0.020*	-0.454	0.000***
Cohesiveness	0.298	0.004***	0.792	0.000***	0.188	0.020*
Organizational support						
Policies	0.914	0.000***	0.581	0.000***	0.765	0.000***
Training	0.439	0.000***	0.501	0.000***	0.503	0.000***
Incentives	0.391	0.000***	0.679	0.000***	0.390	0.000***
		R^2 = 0.982		R^2 = 0.780		R^2 = 0.767
		F value = 256.34		F value = 9.66		F value = 24.00
		Sig. = 9.17E-51***		Sig. = 1.03E-06***		Sig. = 3.62E-28***

Legend: ns = Not significant
* = Significant at 0.05
** = Significant at 0.01
*** = Significant at 0.001

Table 10. Multiple regression analysis of significant independent variables with community participation in the implementation phase of the project

INDEPENDENT VARIABLES	NAM GNAENE		NAMHA		OVERALL	
	Parameter estimation	Probability	Parameter estimation	Probability	Parameter estimation	Probability
Household characteristics						
Age	0.658	0.000***	0.763	0.000***	0.700	0.000***
Gender role	-0.335	0.001**	0.054	0.369^{ns}	-0.171	0.031**
Educational attainment	0.774	0.000***	0.770	0.000***	0.531	0.000***
Household size	0.797	0.000***	0.858	0.000***	0.803	0.000***
Income	0.591	0.000***	0.681	0.000***	0.572	0.000***
Labor capacity	0.808	0.000***	0.834	0.000***	0.809	0.000***
Land size	0.746	0.000***	0.757	0.000***	0.746	0.000***
Decision-making	-0.840	0.000***	-0.596	0.000***	-0.655	0.000***
Project perception	0.842	0.000***	0.597	0.000***	0.385	0.000***

Table 10. Multiple regression analysis... (*continued*)

Community characteristics						
Leadership	0.632	0.000***	0.629	0.000***	0.625	0.000***
Communication	0.803	0.000***	0.910	0.000***	0.836	0.000***
Resources	-0.381	0.000***	-0.504	0.000***	-0.535	0.000***
Power structure	-0.657	0.000***	-0.504	0.000***	-0.611	0.000***
Cohesiveness	0.273	0.007**	0.834	0.000***	0.328	0.000***
Organizational support						
Policies	0.922	0.000***	0.896	0.000***	0.922	0.000***
Training	0.456	0.000***	0.537	0.000***	0.463	0.000***
Incentives	0.348	0.001***	0.800	0.000***	0.475	0.000***
		R^2 = 0.945		R^2 = 0.888		R^2 = 0.928
		F value = 80.77		F value = 20.26		F value = 90.96
		Sig. = 1.03E-35***		Sig. = 7.19E-10***		Sig. = 1.21E-53***

Legend: ns = Not significant * = Significant at 0.05
** = Significant at 0.01 *** = Significant at 0.001

Table 11. Multiple regression analysis of significant independent variables with community participation in the monitoring and evaluation phase of the project

INDEPENDENT VARIABKES	NAM GNAENE		NAMHA		OVERALL	
	Parameter estimation	Probability	Parameter estimation	Probability	Parameter estimation	Probability
Household characteristics						
Age	0.525	0.000***	0.681	0.000***	0.577	0.000***
Gender role	-0.364	0.000***	-0.139	0.196^{ns}	-0.251	0.003***
Educational attainment	0.655	0.000***	0.616	0.000***	0.424	0.000***
Household size	0.706	0.000***	0.740	0.000***	0.711	0.000***
Income	0.560	0.000***	0.623	0.000***	0.518	0.000***
Labor capacity	0.772	0.000***	0.646	0.000***	0.705	0.000***
Land size	0.657	0.000***	0.618	0.000***	0.634	0.000***
Decision-making	-0.702	0.000***	-0.416	0.004*	-0.481	0.000***
Project perception	0.769	0.000***	0.471	0.001**	0.438	0.000***

Table 11. Multiple regression analysis... (*continued*)

Community characteristics						
Leadership	0.438	0.000***	0.739	0.000***	0.524	0.000***
Communication	0.927	0.000***	0.798	0.000***	0.874	0.000***
Resources	-0.318	0.002**	-0.352	0.013*	-0.419	0.000***
Power structure	-0.550	0.000***	-0.352	0.013*	-0.478	0.000***
Cohesiveness	0.326	0.002**	0.778	0.000***	0.315	0.000***
Organizational support						
Policies	0.804	0.000***	0.626	0.000***	0.744	0.000***
Training	0.269	0.008**	0.501	0.000***	0.399	0.000***
Incentives	0.517	0.000***	0.678	0.000***	0.522	0.000***
	R^2 = 0.898		R^2 = 0.673		R^2 = 0.793	
	F value = 41.74		F value = 6.01		F value = 27.76	
	Sig. = 1.74E-27***		Sig. = 6.24E-05***		Sig. = 1.07E-30***	

Legend: ns = Not significant
* = Significant at 0.05
** = Significant at 0.01
*** = Significant at 0.001

Table 12. Respondents' assessment of the NCAD project's satisfaction of goals

PROJECT GOALS	NAM GNAENE (n=80)	NAMHA (n=40)	OVERALL (n=120)
	Mean Satisfaction Score		
Improvement of living standard of the minority groups and other poor groups in the village	3.5	3.5	3.5
Improvement in the level of income of the beneficiaries	3.3	3.3	3.3
Improvement of food security	3.3	3.4	3.3
Overall Goals	**3.4**	**3.4**	**3.4**

Legend:
1.0 – 2.0 Not satisfied
2.1 – 3.0 Slightly satisfied
3.1 – 4.0 Satisfied
4.1 – 5.0 Very satisfied

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Determinants in Sustaining a Local Information System in the Philippines: The Case of the Barangay Management Information System (BMIS)

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Abstract: Information is important for the executive and legislative functions of local officials. The study determined the institutional and individual factors that contributed in sustaining a Barangay Management Information System (BMIS). The study was done in five provinces covering 90 randomly selected continuing barangays and 68 randomly selected non-continuing barangays. Chi-square Test of Independence was used to determine factors associated with whether the barangay will continue to sustain BMIS or not. Logistic regression analysis was also performed to determine factors that may influence barangay's decision to sustain BMIS.

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The identified significant individual factors that influenced the barangays' decision to sustain BMIS were the system's user-friendly features, ease in managing the BMIS software, and usefulness of data generated in performing the functions of the local government officials. The significant institutional factors that contributed to sustaining a Local Information System (LIS) were the active participation of the Barangay Council members in data management; the availability of budget and equipment; the presence of municipal and technical support from the municipalities and state universities and colleges; and the utilization of data in the submission of administrative reports, situational analysis for the preparation of plans, monitoring and targeting of beneficiaries; and the issuance of local ordinance for the adoption of LIS.

Recommendations include strengthening the process of policy preparation at the local level; organization of the LIS team; creation of positions for Information or Investment Officers; crafting of ordinances to support the budgetary requirements; and establishment of partnerships between SUCs and the LGUs.

Keywords: *information system, data management, data banking*

INTRODUCTION

In 1993, Executive Order (EO) 135 was enacted into law to establish a well-coordinated statistical system at the local level. It is the objective of EO for the official statistics at the municipal level to be harmonized with official statistics at the national level. Further, the EO would be responsive to planning and monitoring requirements at the local level.

The EO was created after the Local Government Code (LGC) was ratified on October 10, 1991. The EO ensures that the delivery of basic services devolved at the provincial, municipal and village government units are addressed. The LGC gives the Local Government Units (LGUs) power and responsibilities to implement their development plans, program objectives, and priorities to provide efficient and effective basic services and facilities (*Local Government Code: Book 3*, 1991).

With these devolved powers, the EO stipulates that the production of local-level statistics, the by-products of administrative reporting systems inherent in administering the devolved basic services, shall be continued by the LGUs. The continuation should be consistent with the manner, form, and frequency being adopted by the concerned national line agencies (EO 135 Sec. 3-b). For proper consolidation of the data produced, all LGUs are enjoined to establish their own databases in support of planning and programming activities at the local level.

The different databases introduced at the barangays were initiated by the different agencies. Currently, policy issuances and memorandum circulars were released by the National Anti-Poverty Commission (NAPC) En Banc Resolution No. 7; Department of Interior and Local Government (DILG) Memorandum Circulars 2003-92 and 2004-152; and NSCB Resolution No. 6, Series of 2005 to support the adoption of the Community-Based Monitoring System (CBMS). The CBMS is a monitoring tool to diagnose poverty at the local level as well as to localize the Millennium Development Goals (MDGs), which runs from 1990 to 2015. The MDG is a set of time-bound, measurable goals and targets for combating poverty, hunger, diseases, illiteracy, environmental degradation, and discrimination against women with 18 targets and 48 indicators. During the CBMS 6th National Conference, the key challenges for CBMS included the sustainability and expansion of its coverage.

One of the academe initiatives to help in these endeavors is the Barangay Management Information System (BMIS). It was introduced as one of the components of the Barangay Integrated Development Approach for Nutrition Improvement (BIDANI). The BMIS is a data-banking system on social, economic, ecological, sanitation, agriculture, health and nutrition designed for the municipal and barangay government units. The BMIS promotes evidence-based planning, and monitoring and evaluation of development programs/projects/activities of the LGUs. At present, the BMIS is adopted by 1,034 barangays in 34 municipalities of the provinces of Batangas, Laguna, Quezon in Region IV-A; Mindoro Occidental in Region IV-B; Iloilo in Region 6; Negros Oriental and Misamis Occidental in Region 7; and Leyte in Region 8. However, not all these municipalities and barangays have sustained BMIS.

Results of this study would guide policymakers and decision-makers, program sponsors and donors, program managers and staff, community members and organizations, and research communities in implementing and sustaining a local information system (LIS).

Generally, the study determined the factors associated with the likelihood that the barangays would sustain LIS. Specifically, it aimed to determine the individual and institutional factors that may influence in the decision of the barangays to sustain BMIS and LIS, respectively.

METHODOLOGY

The study was conducted in randomly selected barangays of the provinces of Batangas, Iloilo, Laguna, Leyte, and Quezon, where the BMIS was introduced. The 1,034 barangays trained by BIDANI on BMIS were classified as either continuing or non-continuing. A continuing barangay had an updated BMIS as of 2011

and a plan to update its BMIS for 2012. A non-continuing barangay had no updated 2011 BMIS and no plans as well to update its BMIS in 2012. The barangay and its municipality have the same classification since the Municipal Management Information System (MMIS) could not be up to date without the updated BMIS of its barangays.

Barangays were chosen using stratified random sampling in which the stratification variable was the classification of the area as continuing barangays or non-continuing barangays. The 180 randomly selected barangays comprised 90 continuing barangays and 90 non-continuing barangays.

The eligible respondents consisted of the BMIS managers, specifically the barangay chairpersons who led in the planning activities. If they were unavailable, the barangay secretaries served as alternatives because under the local government code, they are responsible for keeping the updated records of all the barangay residents. Of the 180 target respondents, only 158 (87.8%) responded: 90 from the continuing barangays and 68 from the non-continuing barangays.

Data were gathered using structured and pre-tested questionnaire for the survey and a key informant interview. Most of the questions in both instruments were patterned after the UNICEF 2006 DevInfo 4.0 questionnaire (see Rodriguez, 2007).

The framework of the study shows the factors associated in sustaining the BMIS (Figure 1). These consist of institutional contributions such as manpower resources, investment in machines, budget allotment, and provision of a Municipal Ordinance. The municipalities and barangays provide manpower resources and technical assistance to oversee the BMIS implementation. In addition, the person who manages the BMIS

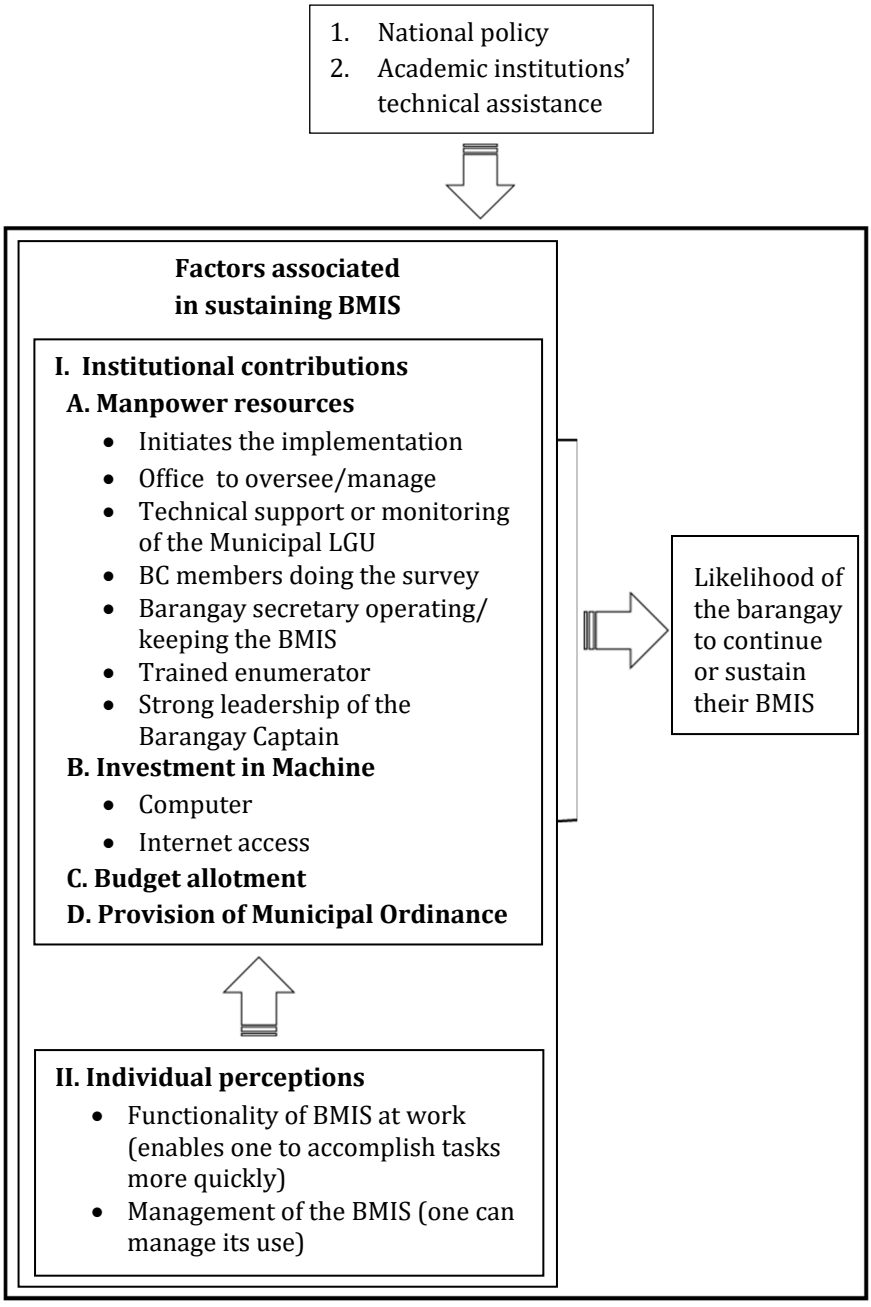

Figure 1. Conceptual framework of the study

should be willing to do the additional job and sees its importance in his/her work.

The participation and continuing support of the municipal government, barangay council members and other volunteer workers in the barangay in the operations of BMIS were assumed to be vital factors in sustaining local database. The LGU support could also be measured by the policy initiatives of the municipal and barangay government units by the provision of Municipal Ordinances.

These factors, in turn, are influenced by individual perceptions on the functionality of the BMIS at work and on its management.

All the above factors are influenced by national policies and technical assistance from institutions. The issuance of national policies towards the adoption of BMIS was expected to compel the LGUs to adopt and sustain BMIS. The academic institutions' role in capability building of the LGUs is an equally important factor in managing the BMIS.

To incorporate the sampling design and to compensate for the non-response, survey weights were computed for each responding unit. In the data analysis, percentage distribution was employed to describe the characteristics of the respondents and responses of the continuing and non-continuing barangays. The Chi -square-based correlation coefficients were calculated to determine the strength of association of the classification of barangays — whether continuing or non-continuing — with several factors. Moreover, to model the factors associated with the barangays' continuance or sustenance of their BMIS, a Binomial logistic regression model was applied.

RESULTS AND DISCUSSION

Respondents' Profile

Majority of those who managed the BMIS in the continuing and non-continuing barangays were females (72%). Majority were also college graduates (58%), while 22 percent were high school graduates. Their ages ranged from 22 to 81 years with a mean of 42 for those from the continuing barangays and 43 years from the non-continuing barangays. The BMIS managers had been serving their barangays for an average of 7 years with a range of one to 29 years (Table 1).

Institutional Factors Influencing Barangay's Decision in Sustaining BMIS

In 1997, when the BMIS was developed by the UPLB-BIDANI Network Program, there were no existing national mandates to adopt a sustainable statistical information system at the local level. Despite this, the number of barangays adopting and sustaining the BMIS increased. The BIDANI Network Program is one of the enabling mechanisms for expanding and sustaining BMIS.

The institutional factors that may possibly influence the sustainability of BMIS in the continuing barangays are listed in Table 2. Almost a fourth (23%) of the barangays declared that BMIS was initiated by the academe or State Universities and Colleges (SUCs) under the BMIS projects of the BIDANI Program. Despite the absence of national mandates, the LGUs initiated the establishment of BMIS in their areas. This was because more than half of the barangays (51.1%) cited that there are existing local policies to support its adoption. These policies include the municipal ordinances issued for the institutionalization of BMIS in

their locality, budget allotment for the purchase of computers and their maintenance, and budget for data updating. Majority (71.1%) of the continuing barangays assigned an office to manage the BMIS. Generally, the Municipal Planning and Development Office (MPDO) was the assigned office to oversee the over-all implementation of BMIS at the municipality. Most of the continuing barangays were able to implement and sustain BMIS even if they did not have specific budgets for BMIS.

Individual perceptions influencing the institution and BMIS managers' decisions in sustaining BMIS. People resist change when the reason for it is unclear, especially in their jobs (*Resistance to Change*, 2012). Ambiguity can trigger negative reactions among local users. According to the review of Information Technology Systems Development, conducted by the Joint Legislative Audit and Review Commission of the Virginia General Assembly (2003), it is important to identify the functional needs of the technology implementers to avoid project failures. Since BMIS is introducing a new technology, which require skills in data collection and encoding, and technical knowledge in data analysis, it is important to capacitate the BMIS end-users. However, learning the skills is only the first step, but it is not enough for the barangays to sustain BMIS. In this study, the individual perceptions of the BMIS manager were also considered to determine the governance in the sustainability of BMIS.

The study showed that many of the continuing barangays agreed that the presence of technical support or monitoring of the SUCs and municipal government units is significant in sustaining BMIS. The technical assistance is part of BIDANI's extension activity to ensure that the BMIS activities are well implemented, particularly for the BMIS managers who are just starting to learn to operate the computer. The municipal focal person should also ideally join the field visits to strengthen their competencies in

responding to the barangays queries. A large percentage of the BMIS managers agreed that the strong leadership of the barangay captain and the support of the barangay council members can contribute in sustaining the BMIS. They said that the BMIS will not be established if the barangay captain did not approve the BMIS activities.

Most of the BMIS managers agreed that the support of the barangay council members was important in collecting the data. With uncooperative members, either more time is needed to finish the BMIS or worse, the BMIS data would be incomplete.

The BMIS managers believed that the change in leadership was not a hindrance in sustaining the BMIS. Since not all the barangay council members were replaced, there were still members who had knowledge about BMIS. Further, the unavailability of a computer was not a hindrance to sustaining the BMIS as perceived by the BMIS managers.

Aside from technical support, the budget support from the municipality also played an important role in sustaining the BMIS. The financial support given to the barangays were spent more on the training and the reproduction of survey forms.

Moreover, more than half of the BMIS managers in the continuing barangays agreed that the BMIS helped them in performing their functions. The BMIS barangay managers agreed that using the BMIS accomplished their tasks quickly, improved job performance, increased productivity, and enhanced work effectiveness.

Factors associated with the barangays' decision to sustain LIS. Table 3 shows that among the significant factors associated with the barangays' decision to sustain the BMIS, were

the highly significant strong association in the perceived interest in using BMIS in terms of its functionality at work (r=0.515 with p-value of 0.000), improvement of job performance (r=0.499 with p-value of 0.000), and productivity of the barangay employees or workers (r=0.494 with p-value of 0.000). The BMIS initiated by the LGUs (r=0.184 with p-value of 0.023) and the allocation of budget for the BMIS activities also had significant associations with the barangay's decision to sustain BMIS (r=0.294 with p-value of 0.003).

Furthermore, the individual perceptions of the BMIS managers had significant contributions in sustaining the BMIS (Table 3). The BMIS managers' perceptions on the importance of the technical support or monitoring of the SUCs (r= 0.596 with p-value of 0.000), strong leadership of the barangay captains (r=0.343 with p-value of 0.000), support from the barangay council members (r=0.371 with p-value of 0.000) and financial support from the Municipal LGUs (r=0.394 with p-value of 0.000) were significant factors associated to the barangay's decision to sustain the BMIS.

Likewise, statistical analysis revealed that change in leadership was not significantly associated to the decisions of the barangays to continue BMIS because some of the barangay officials were re-elected and they realized the importance and contributions of BMIS for local development. However, there was a need to orient the new set of barangay council members about the BMIS.

Factors affecting the probability of barangays to sustain a Local Information System (LIS). Sustainability of LIS at the municipal and barangay levels should always be considered in establishing a LIS because it requires large amount of money and time.

The binary dependent variable, defined as continuing or non-continuing, was regressed to the several factors considered in the study. Table 4 shows which among the variables were significant in predicting the likelihood of a barangay to continue BMIS. Since the Likelihood Ratio Chi-Square Test is significant at 10 percent level of significance, the model is adequate.

At the institutional level, as shown in Table 4, the strong technical support or monitoring of the municipal LGU was one of determining factors in LIS sustainability (with p-value of 0.043). The individual perceptions that LIS was manageable (with p-value of 0.30) and using the LIS accomplished their task more quickly (with p-value of 0.011) were also established to be significant in the model.

The role of the barangay council (with p-value of 0.000) in doing the survey and of the barangay secretary (with p-value of 0.019) was again noted to have significant contributions in determining the probability of sustaining a LIS.

The study showed that the strong leadership of the barangay captain was significant (with p-value of 0.004), the local chief executives should have complete knowledge and support in implementing the BMIS is important to sustain the LIS.

Trained enumerators were not associated, and this was affirmed by the study of Maneja (2013) who said that the BMIS enumerators were BNS, BHW, volunteer workers, and hired enumerators. There was no assurance that these enumerators would be the same group who would conduct the census in the succeeding years. However, if the barangay council members did the survey, it would significantly contribute to the likelihood that a LIS would be sustained.

The fitted model in predicting the likelihood of a barangay to continue based on general indicators is given by:

Logit (continuing) = + 2.565 (technical support or monitoring of the municipal LGU) + 1.719 (I can manage BMIS) + 6.250 (I can perform job quickly using BMIS) + 2.117 (BC members did the survey) + 2.177 (barangay secretary operates/keeps BMIS) – 1.525 (trained enumerators) – 6.211 (barangay strong leadership)

Based on the fitted model, a barangay can sustain its BMIS if the barangay has technical support and the members can manage the BMIS and use BMIS in their jobs, if the BC members did the survey, or if the barangay secretary managed the BMIS. Among these significant factors, a barangay will sustain its BMIS six times higher rather than discontinue it if the barangay can see the use of the BMIS in accomplishing its tasks. However, the logistic regression revealed that likelihood of continuing a BMIS was lower if the barangay had trained enumerators and if their barangay had strong leadership.

CONCLUSION

The facilitating factors in implementing and sustaining a BMIS included the degree of interest of the barangays; capacity development of the enumerators and data encoders; technical as well as financial support from the municipal government units; the active LGU staff and strong leadership of the barangay captains; and involvement of the council members, barangay captains, barangay secretaries, and volunteer workers. Likewise, the factors associated with the possibility of the barangays adopting the BMIS included technical support from the municipal government in the barangays; the individuals' insight on the usefulness and convenience of the BMIS to facilitate tasks/activities; and the role

of the barangay council members and barangay secretary in data collection and in managing the BMIS, respectively.

RECOMMENDATIONS

LIS at the barangay level is feasible and doable, and it can be sustained in large and small populated municipalities and barangays. Suggestions include the following:

1. *Municipal LGU should give technical support and regular monitoring.* The budget for the LIS capability building and data generation should be in place. The barangays should invest in computers to facilitate data encoding and updating.

2. *Give orientation on how to manage the BMIS.* The municipal and barangay LGUs should be properly oriented on the LIS investments and workload. The barangay should also be willing to learn.

3. *Make the BMIS useful in the job of the community members.* The government and other agencies implementing LIS should be responsible in creating awareness on the importance of LIS in the barangays. It should be user-friendly and functional at the LGUs workplace. There should be continuous dissemination on how to use the BMIS in the delivery of services, preparation of plans, and conduct of monitoring and evaluation of their program/plans/activities.

4. *The barangay captain and the council members must be knowledgeable on the importance of the BMIS; the barangay captain should also include one of his plans for the barangay the sustainability of the BMIS.* Approval of a

local resolution can facilitate the sustainability of LIS in the barangay because of the allotted budget for the regular updating of the BMIS. Likewise, sharing of data to the public and making these accessible to the data users may help the barangay captain and council members to be aware of the LIS and its importance in advocacy and linkages.

The following are recommended to strengthen the institutional and individual support in sustaining the BMIS:

Individual Factors

1. Conduct conferences or forum on the process of policy analysis for the preparation of local ordinances by the legislative members and execution of local chief executives. The discussion will emphasize the utility of the BMIS in identifying policy problems, listing courses of action, monitoring of actions and evaluation of policy performance.

2. Conduct capability building activities of the LIS team on data collection, field data cleaning, encoding, validation, and data updating with continuous monitoring of LIS by the municipal LIS team and SUC partner.

Institutional Factors

1. Create positions for Information or Investment Officers who will be responsible for the provision of technical assistance in the production of statistical data at the local level (as indicated in the roles and functions in the LGC and DILG MC 2010-113, respectively) to achieve the strong technical support of the municipalities.

2. Advocate the passing of municipal and barangays ordinances to support the budgetary requirements for sustaining the operations of the LIS.

For future researches, it is suggested that an evaluation study on the current local information system initiated by the LGUs and introduced by the national agencies, academic and other private institutions should be done. A documentation of the current LIS' best practices should be made to further determine the factors in sustaining other models of LIS, the cost-effectiveness in establishing an LIS, and the utility in performing the LGUs' functions.

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TABLES

Table 1. Summary statistics of observed characteristics of BMIS managers

POSITION	CONTINUING %	NON-CONTINUING %	TOTAL %
Sex			
Female	70.0	75.0	72.2
Male	30.0	25.0	27.8
Total	100	100	100
Educational attainment			
College undergraduate	61.1	54.4	58.2
High School undergraduate	14.4	32.4	22.2
Vocational graduate	11.1	4.4	8.2
High School graduate	6.7	0	3.8
Elementary graduate	0	2.9	1.3
Postgraduate	1.1	0.0	0.6
No answer	5.6	5.9	5.7
Total	100	100	100
Age			
Minimum	22	22	
Mean	42	43	
Median	43.5	43	
Maximum	81	63	
Years of service in the barangay			
Minimum	0	1	
Mean	7	7	
Median	10	9.5	
Maximum	24	29	

Table 2. Institutional factors that sustained BMIS in the continuing barangays

FACTORS	PERCENT DISTRIBUTION (n=90)
Institutions that initiated the BMIS	
Municipal and Barangay Government Unit	72.2
National agency	6.7
Academe/University/College	23.3
Private Institution	4.4
Existence of local policy	
Yes	51.1
No	48.9
Total	100
Assigned office to manage BMIS	
Yes	71.1
No	28.9
Total	100
Office that manages the BMIS	
Municipal Planning and Development Office	66.7
Barangay LGU	17.8
MIS Office	8.9
Social Welfare and Development Office	2.2
Municipal Health Office	2.2
Population Management Office	1.1
Mayor's Office	2.2
Status of BMIS Budget allocation	
With budget	37.8
No budget	62.2
Total	100

Note: Multiple responses

Table 3. Association of institutional factors and individual perceptions with the barangays' decision to sustain the BMIS

FACTOR	P-VALUE	CRAMER'S V COEFFICIENT
Institutional factors		
Institutions that initiated the BMIS	0.023*	0.184
BMIS Budget	0.003*	0.296
Individual perceptions		
Affecting institution		
Technical support or monitoring of the State University and Colleges	0.000*	0.000*
Technical support or monitoring of the Municipal LGU	0.000*	0.000*
Strong leadership of the Barangay Captain	0.000*	0.000*
Support from the Barangay Council members	0.000*	0.000*
Budget support from the Municipal LGU	0.000*	0.000*
Change in leadership due to election	0.653	0.653
Affecting the BMIS managers		
Using the BMIS in my job enabled me to accomplish my tasks more quickly	0.000*	0.000*
Using the BMIS improved my job performance	0.000*	0.000*
Using the BMIS increased my productivity	0.000*	0.000*
Using the BMIS enhanced my effectiveness	0.000*	0.000*
BMIS is not necessary in my line of work	0.006*	0.006*

* Significant at $\alpha = 0.10$

Table 4. Estimated parameter of the logistic regression model in sustaining BMIS

PARAMETER	ESTIMATE (B)	STANDARD ERROR	P-VALUE
Intercept	4.283	3.776	0.257
Technical support or monitoring of the Municipal LGU	2.565	1.269	0.043*
Respondent can manage the BMIS	1.719	0.794	0.030*
Using the BMIS in the respondent's job enabled him/ her to accomplish his/her tasks more quickly	6.250	2.459	0.011*
BC members did the survey	2.117	0.577	0.000*
Barangay secretary operates/ keeps BMIS	2.177	0.925	0.019*
Trained enumerator	-1.525	0.826	0.065
Strong leadership of the Barangay Captain	-6.211	2.174	0.004*

* Significant at $\alpha = 0.10$

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