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Productivity and Performance of Barangays: The Case of the Heritage City of Vigan, Philippines

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Abstract**—**This study assessed the productivity and performance of the barangays in the Heritage City of Vigan in terms of the barangays' resource requirements, management of resources, produced goods and services, and outcomes of service delivery. The descriptive research design was used in the study employing the input-process-output-outcomes model.

Findings of this study showed that the barangays were strong in terms of resource requirements which enabled them to produce goods and services. The barangays were also strong in terms of management of resources in development planning. They also showed great potential along fiscal administration, and had a moderately high capability in organization and management. However, the barangays appeared to be most wanting in the area of barangay legislation, but they were strong in community mobilization and they had strong linkages with POs, NGOs and educational institutions.

In the delivery of social services, the barangays favored the maintenance of day care centers. However, the barangays seem to be weak in the delivery of economic services. They fared well along providing protective services such as in establishing a Barangay Disaster Coordinating Council and organizing a group of Barangay Tanod. In terms of environmental services, the barangays performed garbage collection and disposal; however, garbage still found their way in the streets in some barangays. The services delivered had effected an improved status of the barangays. However, the barangays are still facing some problems.

Keywords—Barangays, Performance and Productivity.

I. Introduction

THE Heritage City of Vigan, located in the Ilocos Province of the Philippines, used to be an island which was separated from the mainland by three rivers – the great Abra River, the Meztizo River, and the Govantes River. It is distinct from the other towns in the Philippines because it is a uniquely well-preserved Spanish-style city, though it is vastly distant from Spain. Its origin dates back to the Spanish conquistadores who arrived in the Philippines in the 16th century; but even centuries before the arrival of the Spanish conquistadores, Vigan was already an important trading post. The Spanish brought with them their building styles, houses, churches and religion, and created a city which a mix of Spanish, Filipino, and Chinese influences [1].

The Historic City of Vigan was inscribed in the UNESCO World Heritage List of Sites and Monuments on December 2, 1999, thus, making it one among the only five heritage sites found in the Philippines. The list now incorporates 630 cultural and natural properties with exceptional universal value. The city is considered a unique monument for having retained its ancient urban plan. In the Philippines, this local government unit has the most extensive number of surviving religious, civic, and traditional buildings which date back to the 18th century. Presently, 187 historic structures still stand proud and majestic in Vigan. Most of these structures continue to be inhabited by descendants of the original builders and some, particularly the religious and administrative buildings, are still being used for the original purposes for which they were built. Vigan is a 'living heritage site' where local inhabitants continue to be the custodians of their patrimony. With its inclusion in the prestigious list of world heritage sites, Vigan City has become a source of pride and a national symbol of the Filipinos[2].

Vigan City has received various awards at the regional level, as well as the national level. The city had also established sister cityhood ties with other cities in the Philippines, as well as cities around the world. It can thus be said that the performance of the city is a reflection of the performance of its different barangays.

Vigan City is a 5th class city and it is politically subdivided into 39 barangays. In the Philippines, the barangay is the basic political unit, serving as the primary planning and implementing unit of government policies, plans, programs, projects, and activities in the community; it also serves as a forum wherein the collective views of the people may be expressed, crystallized, and considered. The barangay is also where disputes may be amicably settled [3].

The Barangay government is also given considerable autonomy to manage its own affairs, as well as to explore any possibilities of raising its financial resources and utilizing them according to their own discretion, so long as this will result to the improvement of the welfare of its constituents. But in order to fulfill the barangays' mandates and functions, as contained in the Local Government Code, the barangays must be equipped with the necessary competencies, not only in terms of administrative capabilities but also financial

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resources—these are necessary in the provision of basic technical and physical facilities.

Since the enactment of the Local Government Code of the Philippines, various capacity building efforts from the national government, academic institutions, and other consulting and training organizations have resulted to a number of tangible improvements in the manner the barangays manage their local affairs. However, despite the clamor for improved governance, there has been no clear measure of the level of the capacities of the barangays and on how they apply these capacities. Therefore, there is a need to examine whether the developed and introduced capacities are indeed being applied. There is also a need to prove if these developed and introduced capacities are effective.

The standard and quality of life of the people living in the barangay is dependent on the wide range of services offered by its local government. These services should be provided in an efficient and appropriate level of quality. But as to how well these services are provided is a source of concern among those running the local government. Thus, there is a need to have feedbacks on the effectiveness of the delivery of such services in order to have a basis for improvement.

An effective local monitoring system for local government units has to be established in order to assist the local government units to target appropriate and responsive interventions for poverty reduction and human development [4]. The need to harmonize and integrate some of the existing tools in order for data to be compared across municipalities, cities, and provinces and be able to aggregate data to a higher level should also be emphasized.

Moreover, there is a need for LGUs to be assisted in generating accurate local data and information to be able to respond to the needs of their constituents.[4]

The data gathered in this study will be very useful in determining the strengths and weaknesses of the barangays in Vigan City as far as performance is concerned. Likewise, results of the study will serve as a basis in identifying which programs and projects are responsive to national development goals. Moreover, the results of the study will serve as baseline information for the municipal and provincial governments in monitoring the performance of the barangays within their jurisdiction. Furthermore, the findings in this study may also guide the municipal government officers in allocating financial resources for the barangays.

The data gathered in this study will also be very helpful to Barangay officials, for the data can help them become aware of their current status and can thus serve as their basis in preparing their Barangay Development Plan and on how the said plan can be articulated in the barangay budget. Moreover, findings of the study may enable the barangay officials to identify the areas or aspects of local governance which need to be prioritized or paid immediate attention. Moreover, as the barangay officials become aware of their current status, they may be encouraged more to participate in strategic planning and budgeting.

On the part of the city officials, the findings of this study may serve as guides in monitoring the performance of the barangays and in allocating financial resources for barangay projects. Likewise, the findings of this study may serve as a basis for the city officials in giving recognition to those barangays which earned exemplary performance. Furthermore, this study will provide the city officials with helpful ideas regarding the innovative strategies and tested approaches that the said barangays have implemented in line with the promotion of good governance and in pursuance of sustainable development. Hence, best practices along governance by the barangays can better be identified with the help of this study.

Furthermore, this study would be very helpful for the University of the Northern Philippines, the state university located in Vigan City, as the findings of this study could serve as inputs for the university's initiative to come up with an extension program along good governance.

II. Objective of the Study

This study aimed to assess the productivity and performance of barangays in the Heritage City of Vigan, Philippines.

Specifically, it sought to determine the following:

1. profile of the barangays in terms of population, number of households, and annual income;
2. resources of the barangays that are required to produce goods and services;
3. how the barangays manage its resources to produce goods and service along the following:
    a. development planning,
    b. local fiscal administration,
    c. organization and management,
    d. barangay legislation, and
    e. community mobilization;
4. outputs of the barangays in the delivery of the following:
    a. social services,
    b. economic services,
    c. protective services, and
    d. environmental protection services;
5. impacts of the service delivery of the barangays along the following:
    a. intermediate level, and
    b. high level.

III. Review/Survey of Related Literature

The term local government generally refers to the lower level of the political structure. It is a political subdivision constituted by law to oversee the conduct of local affairs. The local government units perform vital functions in national development. Under the partnership concept and with the devolutions of functions already in place, LGUs are no longer mere implementers of policies and administrative fiats emanating from national authorities. They are now viewed as the chief prosecutor of economic and social development at the local levels [5]. The barangay, which is the focus of this study, is the basic political unit which serves as the primary planning and implementing unit of government policies.

Performance is equated with the local government's responses to the community's needs, particularly the provision of basic and essential public services. High performance is

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the result of rational decision-making; optimal use of resources such as funds, personnel, equipment, etc.; and the delivery of basic public services in a timely and sustained manner. Performance can be assessed in terms of the local governments' capabilities to respond to the community's need for basic essential services. Local government performance is then measurable through discernible improvement in the quality of life of individuals, the society as a whole, and more importantly the poor [6].

Performance Measurement is defined as those processes that are utilized to measure the performance of a Local Government body—particularly in relation to its achievement of pre-determined outcomes and objectives.[7] Performance Measurement evaluates the governance and management capacity of LGUs, specifically focusing on the internal capacity of LGUs in the areas of local financial administration, local legislation, organization and management, and local development planning.[8] Performance Management, on the other hand, can be defined as all of those processes (including Performance Measurement) that are utilized to capture the results of performance measurement and feed them back into the planning processes which then guide the organization to make the necessary changes to its activities and modes of operation and (if necessary) make changes to its strategic outcomes and objectives [7]. The two terms are not interchangeable, rather, they form an integrated part of a total Performance Management Cycle.

Productivity has been known to refer to the efficiency or effectiveness of individuals, groups, organizational units, entire organizations, industries, and nations. It is sometimes used interchangeably with such concepts as output, motivation, individual performance, organizational effectiveness, production, profitability, cost/effectiveness, competitiveness, and work quality. Productivity may also refer to what a new product will enable one to increase if such product is bought. Productivity measurement is used to refer to performance appraisal, management information systems, production capability assessment, quality control measurement, and the engineering throughput of a system [9].

In assessing the delivery of services in the social, economic, political, and environmental sectors, Productivity Performance is used. In Productivity Performance, the degree of productivity is determined by comparing the actual LGU services against service standards prescribed by the national government agencies concerned. On the other hand, Service Delivery Outcome Assessment is used to determine the effect of the services delivered by the LGUs to the citizen's quality of life, particularly the impact of the services to the socioeconomic conditions of the residents, especially the poor [8].

In the Philippines, the Local Productivity and Performance Measurement System (LPPMS) is one of the most commonly used performance indicator systems at the local level. LPPMS self assesses LGU performance by measuring multi-sectoral impact and the presence/number of services, facilities, projects, plans, programs, and policies, while emphasizing on good governance and administration. The result of the evaluation will guide the policy makers in making decisions towards the modification of their strategies in implementing a program. LPPMS can also be used in the identification of bottlenecks or impediments in the program mechanisms for the purpose of early corrective measures in order not to waste resources and energies. The system is essential in determining the LGU productivity and performance in order to enable local leaders to improve the quality of local policies, programs, and services for greater transparency and accountability in government operations [10]

Local governments also have a very crucial role to play in the attainment of government goals under the Millennium Declaration. The need to encourage local governments to reallocate resources towards basic social services and intensify efforts towards the implementation of programs, projects, and activities that are responsive to Millennium Development Goals or MDG had been underscored time and again. The Millennium Development Goals is a set of time-bound, measurable goals and targets for combating poverty, hunger, diseases, illiteracy, environmental degradation, and discrimination against women. It consists of eight goals and 14 targets. In 2004, Capones, from the Philippine National Economic Development discussed the eight Development Goals (MDGs) during the Regional Conference on Mainstreaming the UNDP Millennium Development Goals in Local Governance. The eight Development Goals (MDGs) are as follows: 1) eradicate extreme poverty and hunger; 2) achieve universal primary education; 3) promote gender equality; 4) reduce child mortality; 5) improve maternal health; 6) combat HIV/AIDS, malaria, and other diseases; 7) ensure environmental sustainability; and 8) develop a global partnership for development. Along with these MDGs, the specific targets were also discussed [4].

In its advocacy of "Scaling up the Grains in Local Governance," the Local Government Reform Cluster in the Philippines had a showcase of exemplary practices of several participating local government units (LGUs). The innovative strategies and tested approaches in promoting good governance and pursuing sustainable development, which were being implemented in several Philippine communities were featured in the showcase. Thus, in keeping with the theme of the campaign, the Department of Interior and Local Government (DILG) in the Philippines issued a Circular on localization of the Millennium Development Goals. The Circular contained specific guidelines for LGUs on how to implement the eight (8) MDGs in their respective localities[11].

IV. Methodology

This study used the descriptive research design, utilizing the input-process-output-outcomes model. It described the barangays' resource requirements, management of resources, delivery of services and the outcomes of the service delivery.

The main respondents of the study were the *Punong Barangay* (Local Chief Executive of the Barangay) and the Barangay Secretaries from the 39 barangays of Vigan City. Five other residents in each barangay were also taken as respondents in order to validate the data gathered from the Punong Barangay and the Barangay Secretaries.

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The study used various methods in gathering the data needed. A questionnaire was used in gathering data on the profile of the barangays, as well as in gathering information about barangay resources, barangay processes, barangay outputs, and barangay outcomes or impacts. Most of the items in the questionnaire were based on the questionnaire devised by the Local Government Academy for Barangay Governance and Development Program [12]. Some of the items in the questionnaire were also based from the LPPMS [13]. Likewise, the arrangement of the items in the questionnaire was based on the LPPMS. The final version of the questionnaire was reviewed by experts in public administration from the University of Northern Philippines.

The Punong Barangay and the Barangay Secretary in each barangay were requested to answer the questionnaire. They were likewise requested to provide documents on the facilities and projects of the barangays. In addition, ocular inspections and documentation of the tangible projects in the barangays were done. Five residents in each barangay were also interviewed. Most of the data used in this study were taken from documents filed in the Barangay offices. In the absence of documents in the Barangay level, documents filed at the city level were requested. Data gathered in the barangay were also verified with the data submitted at the city level. This is particularly true for the financial records and accomplishments of the barangays.

Processing of the data gathered in this study was done through the use of the following statistical tools: frequency, percentage, mean, and simple ratio and proportion.

V. Results and Discussion

Profile of the Barangays

The distribution of the barangays in the Heritage City of Vigan in terms of population, number of households, and total annual income is presented in Table I.

Most of the barangays have a population ranging from 501-1000. The most populous barangay had a population of 2446 while the least populous barangay had 286 residents. The average population per barangay in Vigan City is 1211, which is lower than the average national and regional population figures (which are 2112 and 1392, respectively) based on the 2007 census of the total population [14] and total number of barangays [15]. This means that, on the average, the barangays in the City of Vigan are not populous.

In terms of the number of households, majority of the barangays had 100-300 households. Less than one-third of the total number of barangays had more than 300 households. The average number of households per barangay is 267. It is worth mentioning that the average number of households per barangay in the City of Vigan is still lower than that of the computed national data based on the total number of households [16] and barangays. The Philippines had an average of 364 households per barangay [15]. However, the average number of households per barangay in the City of Vigan is still higher than the computed regional data which is at 255 households per barangay.

TABLE I
Profile of the Barangays

BARANGAY PROFILE	f	%
Population		
More than 2000	6	15.38
1501-2000	5	12.82
1001-1500	8	20.51
501-1000	16	41.03
500 and below	4	10.26
Total	39	100.0
Mean	1211	
Number of Households		
More than 500	3	7.70
401-500	7	17.95
301-400	1	2.56
201-300	13	33.33
101-200	13	33.33
100 and below	2	5.13
Total	39	100.00
Mean	267	
Annual Income		
More than PhP1,000,000	6	15.38
PhP750.01- PhP1,000,000	10	25.64
PhP500,000- PhP750,000	22	56.41
Below PhP500,000	1	2.57
Total	39	100.00
Mean	PhP763,128.14	

In terms of total annual income, majority of the barangays had an annual income of PhP500,000- PhP750,000. There were six barangays with annual incomes of more than PhP 1 Million. On the average, each barangay had a total annual income of PhP763,128.14.

Barangay Inputs

Data concerning the inputs or resource requirements to produce goods and services in a barangay were measured in terms of quantity. These are presented in Table II.

Almost all the barangays had a barangay hall. Only one barangay did not have an administration building (barangay hall). However, this barangay is within the city proper, thus, the city facilities were being used as a venue for meetings and other activities of the barangay. The local chief executive in all the barangays submitted a message regarding their annual budget. Likewise, all the barangays had statements of actual income and expenditure which were duly certified by proper authorities. Moreover, the 39 barangays complied with the prescribed number of offices, namely, one Punong Barangay, seven Barangay Councils or Barangay Kagawad, one Sangguniang Kabataan (SK) Chair, one Barangay Secretary, and one Barangay Treasurer.

TABLE II
DISTRIBUTION OF THE BARANGAYS IN TERMS OF AVAILABILITY OF RESOURCES

Barangay Resources	f	%
Presence of the following:		
Barangay Hall	38	97.44
Budget Message of local chief executive	39	100.00
Certified Statements of Actual Income and Expenditure	39	100.00
Compliance with prescribed number of mandatory offices	39	100.00

Process: Management of Resources

This section covers how the barangays managed their resources to produce goods and services. Management of resources was examined along development planning, local fiscal administration, organization management, local legislation, and community organizing.

Development Planning. All the barangays had planning policies and guidelines. All the mandatory requirements of development planning were complied with by nearly all the barangays. Al the barangays had planning policies and guidelines, Annual development Plan and Data Bank. Almost all had their own annual investment plan, and they all had their own annual development plan (please refer to Table III). The optional requirement of development planning, which is the Annual Procurement Program, was complied with by all the barangays.

The development plan of the barangay was formulated not only by the barangay councils themselves, but also by the Sangguniang Kabataan chair, and representatives of varied NGOs (particularly the women and the children). In fact, the barangays in Vigan City have been attending the Strategic Planning Approach for Rurban Communities (SPARC), a program of the City Government of Vigan which has the aim of promoting transparent and participatory governance. This implies that there exists a participative effort from the people and that the people have a voice in the formulation of plans for the barangay. Having a participatory approach in the formulation of programs in the LGUs is one of the requirements of the Millennium Development Goals (MDGs) [17]. It is, therefore, safe to claim that the barangays in the Heritage City of Vigan were able to comply with this requirement.

Local Fiscal Administration. All the barangays showed strength in terms of the presence of an Annual Budget that was approved within the calendar. They also showed strength on the presence of an Annual Revenue Plan. In fact, 100 percent or all the barangays had these documents.

The presence of a local revenue code can also be considered as one of the strengths of the barangays, since around three-fourths of them had this. However, the barangays were considered weak in terms of possessing a computer-based financial management system. Many of the barangays admitted that they are not yet using this system in their own barangay. However, there is one staff of the city government of Vigan who is responsible for the computerized financial data of all the 39 barangays. Earlier findings also showed that only few cities had a computer-based financial management system [13]. As regards the percent of budget allocated for personal services, most of the barangays allocated 35.01%-40.00% of their budget on personal services, while the least of the barangays only allocated 25.01%-30.00%.

TABLE III
MANAGEMENT OF RESOURCES ALONG DEVELOPMENT PLANNING AND LOCAL FISCAL ADMINISTRATION

Management of Resources	f	%
Development Planning		
Presence of planning policies and guidelines	39	100.00
Presence of Annual Investment Plan	38	97.44
Presence of Annual Development Plan	39	100.00
Presence of Data Bank	39	100.00
Presence of Annual Procurement Program	39	100.00
Local Fiscal Administration		
Presence of Annual Budget Approved within the Calendar	39	100.00
Presence of Annual Revenue Plan	39	100.00
Presence of local revenue code	30	76.92
Presence of computer-based financial management system	8	20.51
Percent of budget allocated for personal services		
Higher than 40.00 %	8	20.51
36% - 40%	16	41.03
31% - 35%	10	25.64
25% - 30%	5	12.82
Total	39	100.00
Mean	36.39%	
Percent of total expenditure from total income		
higher than 90%	3	7.69
81%-90%	4	10.26
71%-80%	14	35.90
61%-70%	13	33.33
51%-60%	5	12.82
Total	39	100.00
Mean	72%	

The highest percent of allocated budget for personal services was 49.07 percent, while the lowest was 25.72 percent. On the average, the budget allocation for personal services per barangay was 36.39 percent. DILG requires that a barangay can allocate a maximum of 55 percent of their budget for personal services. Hence, it can be said that all the barangays complied with this requirement from the DILG.

In terms of total expenditure from total income, a little more than one-third of the barangays were able to spend 51%-60% of their total income, while the least of the barangays spent 81-90 percent. The highest percent of total expenditure from the total income was 93 percent, while the lowest was 52 percent. Generally, 72 percent of the total income per barangay is spent for its operation.

Organization and Management. As regards the management of barangay resources along organization and management, Table IV shows that the barangays performed strongly in terms of having accomplishment reports which are submitted on time. In addition, the barangays fared strongly in having barangay-initiated training programs. Moreover, almost all the barangays had one-day processing for issuing

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barangay-related certificates, like barangay clearance for business purposes, Community Tax Certificate, and other barangay certificates. This means that the barangays were very much responsive in the issuance of necessary barangay papers.

TABLE IV
MANAGEMENT OF RESOURCES ALONG ORGANIZATION AND MANAGEMENT

Organization and Management	f	%
Presence of manual of operations	17	43.59
Presence of accomplishment report submitted on time	39	100.00
Presence of barangay-initiated training	34	87.18
Presence of serviceable equipment		
-hand-held radios	33	84.62
-cellphones	33	84.62
-computers	35	89.74
-typewriters	33	84.62
-copying machine	-	-
-fax machine	-	-
Presence of serviceable vehicles		
-service vehicle	22	56.41
- motorcycle	1	2.56
-garbage truck	5	12.82
-heavy equipment	-	-
-patrol cars	1	5.13
Response time in the issuance of barangay related certificates		
- more than 3 days	1	2.56
- within 2 days	3	7.69
- within 1 day	35	89.75
Total	39	100.0

The barangays were also well equipped with communication equipment like hand-held radios, cellphones, computers, and typewriters. However, they were not equipped with a copying machine and fax machine. The presence of computers in the barangays is a manifestation that the barangay residents are also up-to-date in terms of advancement in technology. However, there were still many barangays who claim that the typewriter is still considered as important equipment in filling up some forms to be submitted at the city hall.

One weakness of the barangays was on the presence of a manual of operations, since more than half of the barangays do not have a manual of operation. This could be due to lack of knowledge and skills in the preparation of said manual. The presence of barangay service vehicles was also one of their weaknesses since only a little more than half of the barangays in Vigan City had service vehicles. Very few of the barangays had motorcycle, garbage truck, and patrol cars. In the absence of a patrol car, the barangays use bicycle for patrolling purposes.

Barangay Legislation. As reflected in Table V, almost all the barangays had barangay agenda and internal rules of procedure. All the barangays also complied with the standard number of barangay council sessions, which is done twice a month. In addition, all the barangays had passed resolutions. Some barangays claimed to have passed 1-10 resolutions and the other barangays passed more than 10 resolutions.

In terms of barangay assemblies, majority of the barangays hold regular assemblies semi-annually or every six months. One barangay even holds regular barangay assembly quarterly. In some cases, barangays hold assemblies more often or as the need arises. Conducting assemblies more frequently suggests that there is an improved method of communication between and among the barangay residents. This also implies that there is a participative effort from the residents when it comes to planning and decision making along barangay concerns.

TABLE V
MANAGEMENT OF RESOURCES ALONG BARANGAY LEGISLATION AND COMMUNITY MOBILIZATION

Barangay Legislation	f	%
Presence of internal rules of procedure	34	87.18
Presence of barangay agenda	36	92.31
Passing of program-related resolutions	39	100.00
More than 10	12	30.77
6-10	5	12.82
1-5	5	12.82
None	17	43.59
Total	39	100.00
Compliance with the standard number of sessions	39	100.00
Frequency of holding barangay assemblies		
- quarterly	1	2.56
- semi-annually	38	97.44
Community Mobilization		
Partnership with NGOs	.39	100.00
Partnership with POs	39	100.00
Partnership with educational institutions	39	100.00

Community Mobilization. The barangays fared well in making partnership with People's Organizations (POs) in implementing barangay projects, programs, and activities. Some barangays also had partnerships with non-government organizations, educational institutions—particularly the elementary and secondary schools—in the implementation of projects like the Alternative Learning System (ALS), and other projects in the barangays.

Barangay Outputs: Goods and Services Produced

The productivity of the barangays was measured in terms of the delivery of four types of services, namely, social services, economic services, environmental services, and protective services.

Social Services. Almost all the barangays in Vigan City had a Barangay Office and a multi-purpose hall (Please refer to Table VI) The Barangay Office was well-equipped with office tables, chairs, computers, and other office equipment. All the barangays had maintained their own Day Care Center that has a comfort room and a safe water supply. The Day Care Centers are also equipped with audio visual materials like televisions, computers, and radio cassettes. One barangay even purchased an LCD for their day care center.

Other infrastructures such as public comfort rooms, parks, and health center/station were present in almost all the barangays. However, there were only few barangays which were able to put up and maintain a reading center and facilities for senior citizen's affairs. Moreover, only some of the barangays were able to provide women's and children's desks. Additional services provided by the barangays were

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educational assistance in the form of financial support and school supplies.

It is worth mentioning that one barangay even shouldered the fees for the elementary education of children who were enrolled in the public schools. A daily transport service was also provided for free to public school children by using a service vehicle that was provided by one barangay. These are simple services but they truly reflect the barangays' deep concern on the child's total development and can serve as their solid foundation for academic work. This is a preliminary step leading to the attainment of target 3 of the Millennium Development Goal 2, wherein it was stated that children everywhere should be able to complete a full course of primary schooling by the year 2015.

TABLE VI
DISTRIBUTION OF THE BARANGAYS IN TERMS OF THE DELIVERY OF SOCIAL SERVICES

Social Services	f	%
1. Provision of the social facilities		
- barangay office	38	97.44
- barangay multi-purpose hall	35	89.74
- day care center	39	100.00
- reading center	25	64.10
-health center/station	35	89.74
-senior citizens' affairs	23	58.97
-women's and children's desks	27	69.23
-parks	36	92.31
-public comfort rooms	38	97.44
2. Barangay-assisted health programs	36	92.31
- family planning	34	87.18
- maternal care	33	84.62
- child care	33	84.62
- nutrition	39	100.00
- immunization	39	100.00
- operation timbang	39	100.00
- micro-nutrient supplementation	23	58.97
- food supplementation	13	33.33
- disease control program		
tuberculosis	16	41.03
sexually transmitted	5	12.82
Leprosy	11	28.21
HIV-AIDS	2	5.13
3. Presence of sports facilities		
- basketball court	35	89.7
- tennis court	1	2.56
- volleyball court	35	89.7
4. Presence of organized lupong tagapamayapa	38	97.44

For the barangay-assisted health programs, all the barangays had implemented the nutrition, immunization, and operation timbang programs of the city government. This is through the efforts of the barangay officials, the Barangay Nutrition Scholar, and barangay health workers, in cooperation with the staff of the city health office. Moreover, majority of the barangays had assisted the city government in the implementation of other health programs like the family planning, maternal care, and child care. The barangays had also made possible the provision of essential drugs for Integrated Management of Childhood Illness. They were also able to put up a "Botika sa Barangay" and they even purchased their own weighing scale to support the Operation Timbang program of the City Health Office.

These suggest that majority of the barangays are really focusing on health care for the mothers and children. This is also an indication that the barangays are exerting great efforts towards the attainment of the country's commitment to the Millennium Development Goals, especially MDG 5, to improve maternal health; and MDG 4, to reduce child mortality.

On the other hand, a little more than half of the barangays had assisted in the micro-nutrient supplementation program of the city government. A small number of the barangays had also assisted the food supplementation program of the city government, wherein a supplementary feeding was done not only for malnourished children but also for the elderly. Along disease control, most of the barangays were mostly concerned with the disease tuberculosis. Not much concern was given to sexually transmitted diseases and HIV-AIDS. This may be because there is a low incidence of sexually transmitted diseases and HIV-AIDS in the barangays.

In terms of sports facilities, a basketball court was the most common sport facility provided by majority of the barangays. The said court is also being used as a volleyball court in all the barangays. There was only one barangay with a tennis court. Moreover, all the barangays did not have a sports complex.

Almost all the barangays had organized their own "Lupong Tagapayapa", a group of residents who are responsible for resolving disputes within the barangay level. One barangay just recently organized its Barangay Justice System. The Barangay Justice System consists of 10 to 20 members who exercise administrative supervision over conciliation panels to effect speedy resolution of disputes in the barangay.

Economic Services. Table VII shows data on the delivery of economic services by the barangays.

TABLE VII
DISTRIBUTION OF THE BARANGAYS IN TERMS OF THE DELIVERY OF ECONOMIC SERVICES

Economic Services	f	%
Agricultural Support Services (N=30)		
-dispersal of livestock	15	50.00
-seedling nursery	17	56.67
- seeding materials for aquaculture	15	50.00
-palay seed garden	20	66.67
-corn-seed farm	19	63.33
-vegetable seed farm	19	63.33
- medicinal plant garden	28	93.33
Livelihood Programs		
-provision of skills training	30	76.92
-animal dispersal (N=30)	24	80.00
Roads Maintained	34	87.18
Barangay Economic Enterprises		
- mini market	14	35.90
-others	4	10.26

More than half of the rural barangays were able to deliver agricultural support services to improve the economic conditions of the people in the barangay. These barangays had embarked on dispersal of livestock and provided seedling nursery, seeding materials for aquaculture, palay and seed garden, corn-seed farm, and vegetable seed farm. This is because agriculture is not the main livelihood of the people of City of Vigan. Almost all the rural barangays were able to

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provide medicinal plant gardens for the barangay residents' use. In addition, some rural barangays had provided additional agricultural support services to their farmer constituents like the acquisition of farm equipment, farm supplies, and other farm needs.

Along livelihood programs, more than three-fourths of the barangays were able to provide skills training to their constituents. They embarked on providing trainings on handicraft making, cooking, pottery making, weaving, and food production and processing. Likewise, some barangays also conducted basic trainings on household food security like backyard gardening and fish culture. Some barangays even purchased livelihood equipment and facilities to support their livelihood programs. Dispersing animals to help their constituents earn extra income was also done by the rural barangays.

All the barangays had maintained public access for roads, as well as farm to market roads. Along economic enterprises, some barangays were involved in community enterprises like putting up a *talipapa* (a makeshift wet and dry market) in the barangay, mini sari-sari stores, satellite market, and stalls for native delicacies. There were around one-fourth of the barangays that collected parking fees. Economic enterprises like electric system, water system, and telephone system were not present in any of the barangays. The said systems are usually owned by private entities in the locality. Economic enterprises of these types are even rare in most cities in the Philippines [13].

Protective Services. As shown in Table VIII, majority of the barangays in the City of Vigan have their own Barangay Anti-Drug Abuse Council (BADAC). All the barangays also have a Barangay Disaster Coordinating Council (BDCC) whose purpose is to equip the barangay residents with proper information on what to do in times of disaster or calamity. All the barangays also organized a group of Barangay/Tanod Bayan who helps maintain the peace and order situation in the barangays. Household visitations were also practiced by more than half of the barangays, although it was accepted that this was not regularly done, as this was done only as the need arises.

TABLE VIII
DISTRIBUTION OF THE BARANGAYS IN TERMS OF THE DELIVERY OF PROTECTIVE AND ENVIRONMENTAL PROTECTION SERVICES

Protective Services	f	%
Presence of Anti-Drug Abuse Council	34	87.18
Presence of Barangay Disaster Coordinating Council (BDCC)	39	100.00
Presence of Barangay/Tanod Bayan	39	100.00
Practice of household visitations	27	69.23
Environmental Protection Services		
Presence of Barangay Solid Waste Management Committee (BSWMC)	34	87.18
Garbage collection and disposal system (rural barangays) N=30	30	100.00
Presence of compost pit in every household (rural barangays) (N=30)	25	83.33
Regular practice of garbage collection in the barangay	25	64.10
Presence of garbage dumped along the street	10	25.64
Presence of functional sewerage system (drainage canal)	18	46.15

Environmental Protection Services. A Barangay Solid Waste Management Committee (BSWMC) was present in almost all the barangays in the City of Vigan. All the rural barangays continuously campaign for proper garbage disposal. In almost all the rural barangays, compost pits for waste disposal were being maintained by each household. Thus, only 25 out of the 39 barangays in the city practiced regular garbage collection. There was also a functional sewerage system (drainage canal) in some barangays. However, around 26 percent of the barangays admitted to the presence of garbage dumped along streets.

Outcomes: Impact of the Delivery of Barangay Services

As stated in the questionnaire, the outcomes of the delivery of barangay services in this study were measured at the intermediate and higher levels. The intermediate level outcomes were measured in terms of the programs and projects implemented by the barangay, fund sources of barangay projects/programs, tax collection efficiency, revenue collected, and presence of a bulletin board display of the financial statement. On the other hand, higher level outcomes were measured in terms of improved quality of life.

Intermediate Level Outcomes. The barangays had performed several programs and development projects/programs as a result of their delivery of basic services. These include social development programs, economic development programs, environmental protection programs, and protective services programs. The data are reflected in Table IX.

The barangays performed almost all the social development programs. In fact, all the barangays had embarked on a Sanitation Program for their social development. The barangays in Vigan City had also shown concern along the fight against infectious diseases as they did fogging for pest control. In most barangays, water-sealed toilets were distributed to selected households. These are simple efforts of the barangays but they contributed a lot in the prevention and fight against infectious diseases. This is a manifestation that the barangays were also doing something towards the attainment of MDG 6, which is to combat HIV-AIDS and other infectious diseases.

Health and Nutrition Program was the second most performed social development program by the barangays. Some of the activities initiated by the barangays under this program are the promotion of nutritious foods, conduct of training programs for responsible parenthood and proper care of children, conducting seminars on family planning awareness and provision of contraceptive commodity to current users and new acceptors, and maintenance of health care centers equipped with facilities for obstetrics care. The latter activities were designed for the improvement of maternal health and increased access to reproductive health in the barangay. Generally, all of these activities were undertaken in response to MDG 4, to reduce child mortality; and MDG 5, to improve maternal health.

Almost all the barangays performed programs on sports development and Gender and Development or GAD. The Barangay Physical Fitness and Sports Development Council, which was organized by the barangays, serves as a channel

through which the youth of the city can harness their abundant energy in a healthful, life-enhancing, and goal oriented condition. The Sangguniang Kabataan (SK), an organization for young men and women in the barangay, had been very active in the development of sports in their own barangays. Annually, sports competitions are held in each barangay. This is also another way of making the youth busy and to prevent them from being involved in drugs.

TABLE IX
DISTRIBUTION OF THE BARANGAYS IN TERMS OF INTERMEDIATE LEVEL OUTCOMES

A. Intermediate Level Outcomes	f	%
1. Inventory of Programs and Projects		
a. Social Development Programs		
- sports development	36	92.31
- GAD program	36	92.31
- Health and Nutrition Program	37	94.87
- Sanitation Program	39	100.0
b. Economic Development Programs		
-Agricultural Development Program		
= crops	19	48.72
= fisheries	14	35.90
= livestock & poultry	15	38.46
-Trade and Industry Promotion		
= cottage industries	4	10.26
= livelihood skills training	11	28.21
= small and medium enterprise	12	30.77
-Cooperative Development Promotion	11	28.21
- Tourism Industry Promotion	10	25.64
- Maintenance of Skills Training	15	38.64
- Construction of New Roads	20	51.28
c. Environmental Protection Programs		
- tree planting program	36	92.31
- clean and green program	36	92.31
- reforestation (trees preservation)	12	30.77
- pollution control program	18	46.15
- flood control program	17	43.59
d. Protective Services Program		
- Anti-Drug Abuse Program	33	84.62
- Crime Prevention Program	31	79.49
- Fire Prevention Program	26	66.67
- Street Lighting Program	39	100.0
- Disaster Preparedness	34	87.18
2. Fund Sources of Barangay Projects		
a. Source of projects funds		
- grants and donations	39	100.0
3. Tax Collection Efficiency Rates	39	53.85
4. Revenue (2007)		
a. IRA		
More than PhP1,000,000	1	2.56
PhP750.01- PhP1,000,000	10	25.64
PhP500,000- PhP750,000	26	66.67
Below PhP500,000	2	5.13
Total	39	100.0
Mean	679,952.26	
b. Revenue from Local Sources		
More than PhP300,000	1	2.56
PhP200,001- PhP300,000	3	7.69
PhP100,001- PhP200,000	6	15.38
PhP100,000 and below	29	74.36
Total	39	100.0
Mean	83,175.88	
5.Bulletin Board Display for Financial Statement	8	20.51

To support the GAD Program, the Barangay Council for the Protection of Women and Children was likewise organized in almost all the barangays. The said council aims to suppress human trafficking, especially the trafficking of women and children. To promote gender equality and women empowerment in the barangay, there was an equal access given to both men and women in the barangay council, as well as in other barangay committees. In other words, women were properly represented in the different committees and organizations in the barangay. This scenario was observed in all the barangays under study. In fact, all the barangays had organized different associations for women, like the Balikatan and Women's Association. Almost all barangays had also implemented and enforced laws against violence on women and children.

It is also worth pointing out that the creation of the Barangay Council for the Protection of Women is an action related to women empowerment, which is the concern of MDG 3, to promote gender equality and empower women. There were also six barangays that made possible the conduct of skills training for Out of School Youth women and non-working mothers.

The economic development program most commonly performed by the barangays is the construction of new roads. New roads were constructed in some barangays and concreting of new roads and improvement of right of way was done by other barangays. This was followed by agricultural development programs and trade and industry promotion (cottage industries, small and medium enterprises, and livelihood skills training). The three programs least performed by the barangays are maintenance of skills training, cooperative development, and tourism industry promotion. While it is true that most barangays initiated skills trainings, some barangays failed to maintain these. Hence, it did not contribute much in terms of uplifting the economic conditions of the people.

Among the environmental protection programs, tree planting and clean and green programs were mostly performed by the barangays. The said programs outranked pollution control, flood control, and trees preservation programs. All the barangays actively implemented the "Clean and Green, Tapat ko Linis ko Program". The barangays had also organized their own Clean and Green Brigade. Garbage receptacles were installed in strategic areas in each of the barangays to prevent waste from being dumped in the streets. The great effort being shown by the barangays in the clean and green program may be due to the competition for the Cleanest Barangay award, which is an award sponsored by the city government of Vigan.

Furthermore, barangays near the riverside had constructed river walls or ripraps for the purpose of preventing erosion and consequently to protect life, health, and properties from flood damages. In line with erosion and flood control, some barangays conducted tree planting and trees preservation activities. These are also strategies in ensuring environmental sustainability, which is the concern of MDG 7.

The barangays performed well along protective services. All the barangays sustain a Street Lighting Program. Maintenance and construction of new street lights are regularly being done. Disaster preparedness, anti-drug abuse,

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and crime prevention were some of the programs performed by majority of the barangays. Along with these programs, the barangays constructed and maintained their own tanod outpost, which act as a station for the Barangay Tanod, a group of barangay residents appointed by the Punong Barangay to do policing duties in the community; the barangays also acquired additional equipment to be used by the Barangay Tanod members in their patrolling and they even conducted trainings to enhance the capability of the barangay tanod/police. Constant walk patrol of the barangay council and barangay tanod, conducting seminar-workshops on anti-drug abuse, and embarking on spiritually-uplifting activities had made the barangays drug-free, peaceful, and orderly. The protective services program least performed by the barangays is fire prevention. However, seminars on fire prevention were also conducted by the barangays.

The most common sources of project funds in the barangay are grants and donations. Credit financing and joint venture with business sectors were unexplored sources of funding for projects in the barangay and this manifests the barangays' weakness in non-traditional fund sourcing for barangay projects.

As regards taxes, all the barangays were very successful in collecting all projected amount of taxes from their share of real property tax and community tax. In fact, the barangays were able to collect more than what was projected. This is a manifestation that they are also exerting efforts to generate resources for the barangay in order to have funds for their programs, projects, and activities.

In terms of revenue, majority of the barangays had an Internal Revenue Allocation (IRA) ranging from PhP500,000-PhP750,000 for the year 2007. Around one-fourth of the barangays had an IRA ranging from PhP750,000-PhP1M, while only one barangay had an IRA of more than PhP1M.

Revenue from other sources includes share of real property tax, community tax, retail store, fees from clearances, grants and donations, interest income and subsidy from the City amounting to 3,000 per barangay. Majority of the barangays were able to generate only a minimal amount of PhP 100,000 and below. There were, however, around four barangays that had generated more than PhP200, 000. These are barangays near the commercial areas of Vigan City. While it is true that there are many business establishments at the heart of the city, business permits, especially for those businesses requiring a big capital, are secured from the city hall. Only the business permits for businesses requiring small capitals are secured from the barangays. This may explain the minimal amount generated by the barangays from other sources. On the average, an amount of PhP83,175 was generated per barangay from other sources of income.

Comparing the revenue from local sources to the total revenue of the barangays, it was found out that barangay revenues from local sources were only 10 percent of their total revenues. This means that 90 percent of barangay operations were funded from external sources. There were, however, six barangays that had generated revenue from sources equivalent to more than 20 percent of their total revenues. One barangay was able to collect as high as 40 percent of its total revenue.

One of the principles of good governance is transparency and this can be shown by putting up a bulletin board showing the financial statement of the barangay. This is done so that the people can be updated with the barangay's financial status. Only a minimal percent (20.51%) of the barangays in the City of Vigan had put up a bulletin board to display their updated financial statements. However, the barangays with no bulletin board display usually provide the households a copy of the annual financial statement of the barangays.

High Level Outcomes. As stated earlier, high level outcomes were measured in terms of improved quality of life, particularly the impact of the services delivered to the people. The specific indicators of high level outcomes of the service delivery of the barangays are exhibited in Table X. The data were culled from barangays and city documents.

TABLE X
HIGH LEVEL OUTCOMES OF BARANGAY SERVICES DELIVERY

OUTCOMES	Year			Average Annual %change
A. High Level Outcomes	2005	2006	2007	
1. Social				
a. Literacy Rate	89.6	90.3	96.4	3.8
b. Mortality Rate	5.0	6.9	6.1	13.2
c. Infant Mortality Rate	4.0	4.6	3.6	(3.4)
d. Maternal Mortality Rate	0	0	0	-
2. Economic				
a. Unemployment Rate	27.5	24.7	19.3	(16.0)
b. Increase of Barangay Total Income	.62M	.70M	.76M	10.8
3. Protective				
a. Crime Solution Efficiency	86.5	86.5	95.0	4.9
b. Ratio of Barangay Tanod to Population	1:100	1:100	1:100	-
4. Environmental Protection				
a. Violation of Environmental Laws	0	0	0	-
b. Percent of households with sanitary toilet	93.1	94.2	94.8	0.9
b. Percent of households with access to safe drinking water	86.2	89.7	93.6	4.2%

On social outcomes, four specific indicators were used, namely: literacy rate, mortality rate, infant mortality rate, and maternal mortality rate. It should be made clear that the data reflected in the table are the computed mean data of the 39 barangays. As revealed, the mean literacy rate of the barangays increased from year 2005 to 2007. The average annual rate of increase was found to be 3.8 percent. A closer look at the mean literacy rate in year 2007 (96.4), the mean literacy rate of the barangays in Vigan City is generally higher than the recent national literacy rate of 93.4 percent [18]. In terms of the health indicators, mortality rate increased from year 2005 to 2006 but it slightly decreased in year 2007. For the three-year period, there was an average annual increase of 13.2% on mortality rate. Meanwhile, infant mortality rate also increased from year 2005 to 2006 and it again decreased in year 2007. There was an average annual decrease of 3.4% for

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the infant mortality rate in last three years. No change was found in the maternal mortality rate during the three-year period. There were no recorded cases of maternal fatality in the three years covered by the study. This may mean that the barangays were able to maintain the good health of pregnant women. It can be said then that generally, there seems to be a good impact of the social services delivered in the barangay. In fact, three of the four indicators came out to have a positive outcome.

As regards economic outcomes, only nine barangays gave data on unemployment rate; most of the barangays were not able to provide data on unemployment rate in their barangays. There was also no available data found at the city level regarding each barangay's unemployment rate. However, data provided by the nine barangays who were able to submit their unemployment rates show that the mean unemployment rates computed were far higher than the national unemployment rate of 7.8 in the Philippines as of July 2007 [18]. However, there was one barangay which has an unemployment rate that is lower than the national rate. Moreover, the unemployment rates shows a decreasing trend at a rate of 16 percent annually, which indicates that the barangays were doing efforts to provide job opportunities to the people. Despite the high unemployment rate in the barangay, the residents could still survive since there are a lot of opportunities for work in the city which are seasonal in nature. These seasonal works do not usually require educational qualifications. Moreover, many of the people in the city regularly receive financial assistance from their relatives abroad. As regards barangay income, it considerably increased from year 2005 to 2007. In fact, the average annual increase is at 10.8 percent. The efforts of the barangay to collect taxes could have accounted for such increase.

In terms of the outcomes of protective services, crime solution efficiency and the ratio of barangay tanod to the population were used as indicators. Crime solution efficiency remained the same in the years 2005 and 2006, but it increased by 9.8 percent in 2007. The number of tanod in the barangays ranges from 8-20. The ratio of barangay police/tanod to the total population was found to be approximately 1:100 from year 2005 to year 2007. This ratio is better than the 1:707 national police to population ratio in 2004 [19] and the city ratio of 1:705 for year 2007 [20]. This means that the residents of the barangays in Vigan City were highly protected.

As regards outcomes of the environmental protection services, there was no recorded violation of environmental laws such as illegal logging, illegal fishing, kaingin, and improper toxic waste disposal. Meanwhile, the average percent of households with sanitary toilets per barangay increased within the period of 2005-2007. An average annual increase of 9 percent was found. The same is true for the average percent of households with access to safe drinking water per barangay. It increased annually at an average rate of 4.2 percent. This is because provision of safe drinking water through the construction of potable water system was done by all the barangays. Such infrastructure projects were provided with the help and assistance of the city government of Vigan.

VI. Conclusion

The barangays in the Heritage City of Vigan were strong in terms of resource requirements which make possible the production of goods and services in the barangays.

In terms of management of resources, the barangays are also strong in development planning. Along fiscal administration, the barangays showed great potential. They had annual budgets and annual revenue plans, as well as revenue codes. They also complied with the budgetary requirements imposed on personal services. However, many barangays lacked a computer-based financial management system. There are computers in the barangays but there is no existing computer-based financial management system. If existing, the barangay treasurers lack the necessary knowledge and skills on how to use the system. In organization and management, the barangays also had moderately high capability. They showed strength in the submission of accomplishment reports and conducting trainings for the barangay council. They had adequate serviceable equipment, and maintain a one-day processing time for issuing barangay-related certificates. However, the barangays lacked a manual of operations and they lacked serviceable vehicles. Barangay officers are not equipped with the necessary knowledge and skills in preparing manual of operation. The inadequacy of service vehicle could be due to lack of budget. The barangays were also strong in the area of barangay legislation. All the barangays under study complied with the required number of barangay council sessions of at least twice a month and they also complied with the conduct of general assembly twice a year. The barangays were also strong in community mobilization as they had strong linkages with Pos, NGOs, and educational institutions.

In their delivery of social services, the barangays favored the maintenance of day care centers, barangay office, public comfort rooms, parks, health station/center and barangay office; they also adhered to the establishment of a barangay justice system. The barangays, however, seem to be weak in the delivery of economic services. Agricultural support was not given much attention at the barangay level because there is much of this support received from the city government. In addition, putting up of economic enterprise in the barangay is not feasible because these barangays are near the city proper. Road maintenance and provision of skills training were the main focus of the barangays in the provision of these services. In the barangays, the provision of agricultural support services and the operation of barangay economic enterprises were carried out the least. For the protective services, the barangays fared well in establishing Barangay Disater Coordinating Council, Barangay Tanod, and Anti-Drug Abuse Council; but the practice of regular household visitation was not widespread in all the barangays. For environmental services, the barangays performed garbage collection and disposal; however, there are still garbage found in the streets of some barangays. Garbage receptacles are distributed in strategic places in the barangay especially in the streets, however, the residents lack the concern and necessary cooperation. Likewise, functional sewerage system was not found in most

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barangays. Rural barangays are not usually affected by flood because water finds their way to the riceland.

The services delivered by the barangays had effected an improved status among the barangays. There is an increased literacy rate in the barangays, increased barangay total income, increased crime solution efficiency, decreased infant mortality rate, decreased unemployment rate, increased crime solution efficiency. There was also a good barangay police to population ratio; there was no recorded violation of environmental laws; there was an increase in the percentage of households with sanitary toilets; and an increase in access to safe drinking water. However, the barangays are still facing some problems. The mortality rate considerably increased, the barangays' total income still remained to be low, and flood and pollution control programs are not properly implemented. Moreover, the barangays still lack the capability in sourcing out funds for their projects and they still depend on the IRA to run the barangay. The barangay officers are afraid to make loans because of the fear on how to manage the amount loan out.

VII. Recommendations

The barangays should maintain and further improve their existing non-human resources.

The development strategies of the barangays should also be reviewed. Moreover, needs assessment should be made prior to the conduct of development plans in the barangays so that the projects, programs, and activities of the barangays will be more relevant and responsive to the needs of the people.

Maintenance and further enhancement of participatory governance should be made by conducting a strategic planning and fiscal management training/workshop to further enhance the barangays' capabilities. There is also a need for the barangay officials to be more equipped with the necessary knowledge and skills about barangay governance. Hence, a training/workshop for the barangy officers should be conducted for this purpose.

Moreover, the barangays should sustain their strengths and improve their weaknesses. Specifically, the city government should assist the barangays not only in putting up a computer-based financial management system but also to train the barangay officers in using the system. The barangay officers should likewise be assisted in the preparation of an operation manual. The barangays should generate more funds. They should harness fully their resource mobilization powers, such as the intensification of assessment and collection of real properties, business, and other local taxes; acceptable and reasonable bases of imposition for various types of fees and charges should be explored; and review of the non-tax revenue options available to them should be done. They should also prioritize the allocation of their limited resources. This will also help the barangays in the acquisition of service vehicles. On economic services, the barangays should sustain the conduct of skills trainings. Trainings should not only focus on the production of materials, entrepreneurial skills training should likewise be conducted. The barangay residents should not only how to produce materials, they should also know how to sell what had been produced. On the problem of residents dumping garbage in the streets, values development seminar should be conducted at the barangay level. On flood and pollution, there should be a strict implementation of flood and pollution control programs like the Clean Air Act in the barangays. On sources of funds, the barangays should be trained on fiscal management to develop their confidence in availing of loans and making joint ventures with the business sectors. In addition, the city government can create a livelihood and investment program which could be availed by the barangays.

Furthermore, the barangays should implement cost effective methods of data gathering and processing, as well as the building of a Computerized Barangay Data Bank, not just a simple barangay data bank. Series of trainings on Information and Communication Technology (ICT) should therefore be conducted at the city level to be participated by the barangay officers. These trainings will not only equip the barangay officers with the knowledge and skills in ICT but to develop their awareness on the importance of ICT in barangay governance. Monitoring of the skills learned by the barangay officers and evaluation of the effects of these trainings should be made.

Finally, there should be a continuous monitoring of the performance of the barangays.

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