

Working Home: The Role of Shelter towards Economic Well-being.

A Case Study of Socialized Housing in the Philippines



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Introduction

The government through the National Housing Authority has repeatedly cried out that housing has a 16.6 multiplier effect on the industry. This means that this could be translated to having more Filipinos improve the economic well-being and quality of life if given a chance. The President in her statement "The basic task of the Medium Term Philippine Development Plan for the period 2004-2010 is to fight poverty and build prosperity for the greatest number of the Filipino people. We must open up economic opportunities, maintain socio-political stability, and promote good stewardship--- all to ensure a better quality of life for all our citizens. We will focus on strategic measures and activities that will spur economic growth and create jobs. This can only be done with a common purpose to put our economic house back in working order." ¹

When one observed the transformation of a major or main road of any subdivision you will notice the commercialism of its façade where it was once a very peaceful and homely community. How it transformed is the main feature of this paper. The economic and socialized housing in all Metro Manila subdivisions has responded to make improvement or

¹ MTPDP 2004-2010

has converted some areas in their homes for business workplace or even converted completely to commercial.

The proposed paper would like to concentrate on:

1. How the residents have altered the use of original spaces and how they have converted them to workspaces.
 - Converted floor plans
 - Alterations from original structures
2. Factors that have prompted the conversion of spaces into workspaces.
 - Proximity to major thoroughfare (opportunities for business)
 - Degree of social status or type of development (low-income. lower-middle income)
3. Dominant types of livelihood in the community (e.g., selling, manufacturing and services) and factors that lead to this type of livelihood.

The survey results will aim further to see how design decisions on housing can address long term economic opportunities and security of life and property. Housing subdivision developers and planners should also consider space allotted for home business enterprise.

The research is definitely significant for the lower middle income economies in countries such as the Philippines, where there is a considerable number of unemployed and underemployed.

The study will contribute to the students and practitioner of architecture in a large way. It will provide more insights on how to approach shelter design in a more sustainable and how opportunities for economic activities should be provided.

Selected samples of a newly turn-over socialized housing by the government at Muntinlupa, Metro Manila and also economic housing subdivision within Barangay Greater and North Fairview subdivisions in Quezon City will be subjected to case-based investigation using quantitative and qualitative techniques. The concept of livability as defined by World Bank and Global Research Center (GRC) will also be utilized in formulating sets of questionnaires according to its indicators. These variables will also dictate what sustainable housing community should be. Another method is using non-obtrusive equipment like video cam and still camera. Additional information will be derived from interviews to further investigate or clarify certain results in the survey.

1 Shelter Situation Analysis

1.1 Basic General Data

Geography and Administration

The Republic of the Philippines is an archipelago and a tropical country in Southeast Asia, it composed of 7,107 islands clustered into three main island groups with its own metropolitan cities and municipalities. Metro Manila for Luzon, Cebu City for Visayas and Davao City for Mindanao. It has a total land area of 300,000 km² of different topographies and micro climates from low-lying coastal areas, valleys up to the mountainous uplands.

The Philippine has a democratic form of government which resembles that of the United States which is divided into three branches. It includes the Executive, Legislative and Judiciary Departments. The Executive is headed by the President is an elected post to serve a term of six years. The Legislative consists of a Senate with 24 Senators (Upper House) and a House of Representative (Lower House). The Judiciary (Supreme Court) is the highest tribunal.

Demography and Health

In August 2007, the country has 88.6 million growing at an estimate average of 3000 births per day. The population of Metro Manila was 9,932,560 in 2003 and in 2006, it was estimated at 10,596,501.²

Across cities, three out of 12 cities in National Capital Region (NCR) and one in Mindanao have surpassed one million populations. Quezon City had the largest in terms of population size, contributing 2.17 million to the Philippine population. It was followed by Manila (1.58 million persons) and Caloocan City (1.18 million persons). These three highly urbanized cities were in NCR. Outside NCR, Davao City broke the millionth mark at 1.15 million persons.

² <http://www.census.gov.ph>

Table 1 Philippines Demographic and Health Data³

Indicator	Units	2000	2005	2007 July Est.
Population	Million	76.4	83.1	97.9
Population Growth	Annual%	2.0	1.7	1.9
Male	Million	38.7	42.9	
Female	Million	38.2	42.4	
Density	Persons/sq.km	255	282	
Urban Population	Ave. Annual Growth Rate	3.8	3.5	3.0
Health				
Life Expectancy at birth	Years	70.7	72.5	71.0
Crude Birth Rate	Per 1000 population	29.1	28.1	26.4
Mortality Rate, Infant	Per 1000 population	30	25	20.5

Economy

Since 1991 it is an upward trend for the Gross National Product and Gross Domestic Product. It continued even during the Asian financial crises of 1997 when GNP and GDP expanded by 5.30% and 5.20% respectively.

“Economic growth has averaged 5% since President Arroyo took office in 2001. The President averted a fiscal crisis by pushing for new revenue measures and, until recently, tightening expenditures. Declining fiscal deficits, tapering debt and debt service ratios, as well as efforts to increase spending on infrastructure and social services heightened optimism over Philippine economic prospects. Although the general macroeconomic outlook has improved significantly, the economy faces several long term challenges. The Philippines must maintain the reform momentum in order to catch up with regional competitors, improve employment opportunities, and alleviate poverty. The Philippines will need still higher, sustained growth to make progress in alleviating poverty, given its high population growth and unequal

³ National Statistic Office Data, Philippines

distribution of income. The Philippine economy grew at its fastest pace in three decades in 2007 with real GDP growth exceeding 7%, but growth slowed to 4.5% in 2008 as a result of the world financial crisis. High government spending, a relatively small trade sector, a resilient service sector, and large remittances from the four- to five-million Filipinos who work abroad have helped cushion the economy from the current financial crisis”.⁴

Table 2 Economic Indicator

Indicator	Units	2000	2005	2006
Annual GDP	1990 US\$ in million	59115	74364	78357
GDP	1990 US\$ Growth Rate	3.7	4.7	5.4
GDP annual per capita	1990: 1 US\$ is Php 24.7	776	879	908
Average annual GDP	Per capita growth rate	1.5	2.5	3.3
GNI, Atlas method	Per capita (current US\$)	1060	1290	1420
Poverty Threshold	Annual per Capita	320	346	367

1.2 Shelter Related Fact and Figures

Housing deficit

Up to next year 2010, housing need is estimated at 3.76 Million⁵ of which half of it is allotted in Metro Manila, Southern and Central Luzon.

Occupancy

The government has estimated to have 1.4 million informal settler families all over the country of which 51% resides in Metro Manila. Having an urban complex problem, one of the President Arroyo’s administration 10-point agenda aims to decongest Metro Manila.

⁴ CIA Factbook

⁵ NEDA, HUDCC Figures 2004-2010 MTDP

Housing Standard

Nine out of ten were single houses

- Most of the occupied housing units were single houses (87.73 percent). Multi-unit residential and duplex comprised 6.92 percent and 3.54 percent, respectively. The remaining 1.81 percent were either commercial/industrial/agricultural, institutional living quarters or other type of housing units.
- The proportion of occupied housing units which either needed minor repair or did not need any repair at all, was relatively high at 68.57 percent, while 19.09 percent were still housed in buildings needing major repair.
- Of the almost 15 million occupied housing units, about one-third (30.27 percent) of the housing units were built from 1996 to 2000. Buildings built between 1991 to 1995 comprised 22.38 percent, while 21.20 percent for buildings built within 1981 to 1990.

Median floor area of housing units was 29.63 square meters

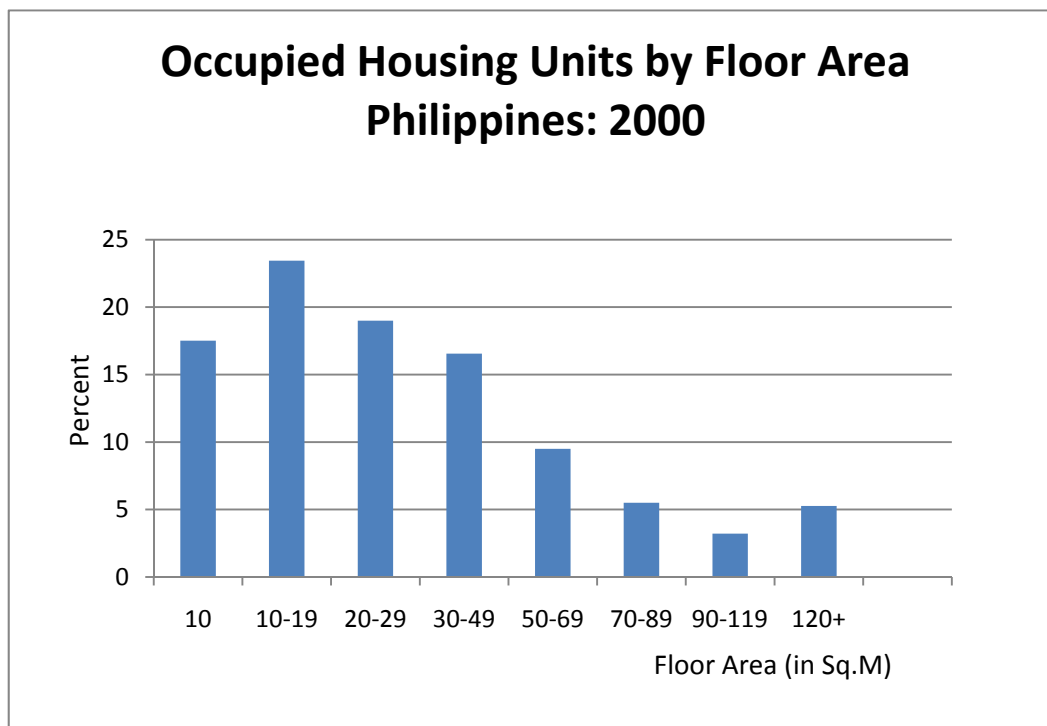
- Of the total occupied housing units, 23.45 percent had floor area of 10 to 19 square meters; 18.78 percent with 20 to 29 square meters; 17.52 percent with less than 10 square meters, and 16.56 percent with 30 to 49 square meters. On the other hand, the proportion of housing units with floor area of 90 to 119 square meters was 3.21 percent.
- Occupied housing units had a median floor area of 29.63 square meters. This meant that, half of the housing units had floor area of below 29.63 square meters.

Floor area per person⁶

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⁶ Ibon Foundation

Table 3



Tenure of households

The Torrens Title Act is the legal system for owning a real estate property called absolute ownership of title, including the ownership titles of the indigenous peoples. Other tenure arrangements are seen as inferior such as rental, leasehold, usufruct or free use of land. This kind of arrangement remains largely to the private sector in all income levels.

Housing affordability ratio

The government through NHA has computed 20% of the family income will be allotted for monthly amortization payments. But experienced will tell us that not all of the 20% is paid due to some other household expenses such as utility bills.

House price to income ratio

The minimum daily wage of an ordinary wage earner is Php 350 or roughly US \$ 7.44 per persons per day (US\$ 1= Php 47). The total monthly gross earnings will be US \$ 163.68 per person based on a 22 working day period. This is about 20 or more times the average cost of core house and lot package. There is no way an ordinary wage earner could afford housing unless government subsidy intervenes.

Housing construction

The common way of constructing a house is via conventional method which mean the used of concrete hollow blocks, concrete with steel reinforcement, galvanized roofing sheets, plywood or cement boards etc.

Innovative methods or systems and materials have to be approved by Housing and Urban Coordinating Council for accreditation.

Building materials

- As to the construction materials used, more than 30 percent of the housing units used concrete/brick/stone for the outer walls. This registered 14.49 percentage point increase from the 1990 figure. In addition, close to 68 percent had roof made of galvanized iron/aluminum, an increase of 17.29 percentage points as compared to the figure ten years ago?
- Housing units using the combination of galvanized iron/aluminum for the roof and concrete/brick/ stone for the walls contributed 29.03 percent.

Access to and cost of Education ⁷

Among household population aged five years and over, 41.89 percent had attended/finished elementary education. This proportion was lower as compared to that in 1995 (43.37 percent). The percentage who had attended/graduated high school posted an increase from 27.85 percent in 1995 to 28.35 percent in 2000.

Among academic degree holders, there were more females (57.89 percent) than males (42.11 percent). The same is true for post baccalaureate courses; the proportion was higher for females (58.27 percent) than for males (41.73 percent).

Access to and cost of Basic Services/Infrastructure

In 2003, The National Demographic and Health Survey has released data pertaining to access to basic facilities and services.⁸

⁷ National Statistic Office 2000

⁸ 2003 NDHS

Table 4

Facilities	Urban Households	Rural Households	Total %
1.Electricity			
With	92	59.8	76.6
With out	8	40.2	23.4
Total	100	100	100
2.Drinking Water Source			
Pipe into d.u.	50.9	16.0	34.4
Piped into Yard	4.8	5.9	5.3
Public Tap	11.1	15.2	13.1
Protected Well	18.6	35.3	26.6
Others	13.8	18.5	20.6
Total	100	100	100
3.Sanitation			
Flush Toilet			
Own	76.7	53.6	65.7
Shared	15.9	10.7	13.4
Close Pit	1.5	10.7	5.9
Others/	5.9	25.1	15.0
No toilet			
Total	100	100	100

1.3 Housing Policy

It has been a long way since housing policy in the country has evolved from being state-driven to a more integrated approach that involves people and community-driven strategies.

Other significant laws passed in the 1990's include:

PD 757 dated 31 July 1975

NHA was tasked to develop and implement a comprehensive and integrated housing program to embrace, among others, housing development and resettlement, sources and schemes of financing, and delineation of government and private sector participation.

EO 90 dated 17 December 1986

NHA was mandated as the sole national government agency to engage in shelter production focusing on the housing needs of the lowest 30 percent of the urban population.

RA 7279 (UDHA) dated 24 March 1992

NHA was tasked to provide technical and other forms of assistance to local government units (LGUs) in the implementation of their housing programs; to undertake identification, acquisition and disposition of lands for socialized housing; and to undertake relocation and resettlement of families with local government units.

RA 7835 (CISFA) dated 08 December 1994

NHA was tasked to implement the following components of the National Shelter Program – Resettlement, Medium Rise Public and Private Housing, Cost Recoverable Programs and Local Housing Program.

EO 195 dated 31 December 1994

NHA was mandated to focus on socialized housing through the development and implementation of a comprehensive and integrated housing development and resettlement; fast tracking the determination and development of government lands suitable for housing and ensuring the sustainability of socialized housing funds by improving its collection efficiency, among others.

Executive Order No. 20 dated 28 May 2001

Reaffirmed mass housing as a centerpiece program in the poverty alleviation efforts agencies including the NHA.

1.4 Actors in Shelter Delivery and their Roles

National Government

HUDCC (Housing and Urban Development Coordinating Council)

Highest policy making and coordinative body on housing and urban development mandated to serve as the lead agency to assist the President in formulating the national objectives, policies and strategies for housing and urban development.

HLURB (Housing and Land Use Regulatory Board)

Enhances rational land use and housing and real estate delivery through policy development, planning and regulation.

NHMFC (National Home Mortgage Finance Corporation)

Develops and provides secondary mortgage market.

HDMF (Home Development Mutual Fund)

Created primarily to address two of the nation's basic concerns: generation of savings and provision of shelter for the workers.

HGC (Home Guaranty Corporation)

Created to operate credit insurance and mortgage guaranty system by assisting private developers undertake low and middle-income mass housing production; operating mortgage insurance program and insuring mortgages and loans.

SHFC (Social Housing Finance Corporation (SHFC))

Administers the Community Mortgage Program.

Local Government

Local Government Unit have been empowered by virtue of the Local Government Code of 1992 which required all key agencies to conduct consultations with Non-Government and people's organizations, and other concerned sectors before any project is implemented.

Private Sectors

The private sector is currently very active in the housing development as developers, contractors, suppliers of building system and materials. Non-governmental Organization (NGOs) are also involved in the housing development either they are community organizers or technical assistants in land tenure, subdivision planning, house design and self-help construction. Universities and Colleges with students in Architecture, Engineering and Planning courses have partnered with NGOs in some selected housing projects through internships and volunteer work.

1.5 Shelter Design

Physical Planning

Planning and construction development in the country is guided by the National Building Code of the Philippines with its current Implementing Rules and Regulations. Other codes like Architectural, Structural, Electrical, Sanitary and Fire Code.

Land Use

Land use planning guidelines was formulated by the HLURB to guide planners and local executives in creating of the comprehensive land use plan or CLUP of all cities and municipalities.

Shelter Quality

Batas Pambansa 220 or (BP 220) sets the guidelines for implementations of economic and socialized housing. It relaxed the building standards in order to reduce construction costs and achieve more affordable housing. It established a minimum lot size of 32 square meters and a minimum floor area of 18 to 24 square meters.

2 Organisation

The Technological Institute of the Philippines (TIP) is a private institution of higher learning in the Philippines which is known for in the field of engineering. TIP has now two (2) campuses in Metro Manila namely, Manila and Quezon City. TIP is one of select schools with Quality Management System certified compliant to the international standard ISO 9001:2000 by Det Norske Veritas (DNV). The certification covers the entire operation and services of the institution's provision of tertiary education in engineering, architecture, business, information and communications technology, and maritime education including training for the national and international industry.

In order to foster this commitment and the practice of continual improvement in all work places in the school, TIP encourages everyone in the school community to actively participate in the Kaizen Circles (KC) Program designed to achieve continuous improvement of work involving everyone through the organized efforts and activities of small groups working together to attain an improvement objective.

The author is a faculty member of the Department of Architecture and Drafting Technology. He handles design subjects and as well as planning subject series like site planning and landscape architecture, urban design, regional and urban planning and housing. This architectural studio is headed by an appointed faculty member that handles all committee initiatives and programmes. Like one in September 2008, the group of TIP architectural students were invited to join UP-NTU and TAO Pilipinas research collaboration on Community Environmental Planning Study which was facilitated by TAO Pilipinas and St.

Hannibal Empowerment Center. The workshop and field study specifically exposes students to mitigating housing problems and issues.

3 Shelter Problem

Given all the issues in housing and other related shelter problems, the government with the help of the private sector, NGOs and the academe has to formulate and devise a mechanism that would alleviate the poverty through housing. It is really important that the actors in the delivery of the housing have to come up with an efficient and effective way of addressing the real need of its beneficiaries. In the recent concluded 2nd Asia Pacific Housing Forum which I attended, the conference theme was “Maximizing Urban Poverty Housing Solutions for Greater Results. They have highlighted multi-stakeholder solutions to urban poverty housing a key to finding innovative housing solutions. It is a synergy among public and private sectors. The images below are some examples of residents maximizing the shelter into economic machine by transforming their place of residence to business establishment:

A Case Study: Typical older neighbourhood facade.



a. Sari-sari (variety) Store: almost everywhere.



b. It was once a peaceful residential neighbourhood.



c. Innovative business expansion.



d. Government mitigation on undesirable facade.

In this paper, the author wanted to concentrate on the cardinal importance of the role of a shelter into the alleviation of the poor and its outcome towards a economic well-being that would sustain them not only for their lifetime but more so with their children's children in the future.

- Poverty reduction through better access to self-employment and home industry income generation.
- Capitalising the government economic programme such as One Town, One Product. (OTOP) etc.
- Improved physical environment like roads, open spaces, light, vent and including access to water supply, sanitation and electricity.
 - Helping people help themselves in the areas of health, education, resource management, social and emotional strength, home production and storage and employment.

A Case Study: Typical evolution from residential dwelling to business establishment:



Fig.1 The beginning.



Fig. 2 Initial business start up.



Fig.3 Full bloom market type business.

4 Proposal for Change and Improvement

As many people go into small business enterprise especially in the low middle and low income bracket. Housing designers and developers should now consider home business activity pattern of potential housing clientele, their basic needs have to be spelled out so that the issues of habitability and other environmental concerns will be addressed properly. There should be a space allocated in case one partner stays home doing business enterprise and as well as attending family affairs.

Questions that need to be addressed so that designers will be guided in the design process are:

- Why does doing business at home getting more attractive and what practical issues that resulted better than before?

For the low income earners it would be practical to do business enterprise to cut away operational expenses and a chance to be closer to their growing children. In general, it is an economically viable since one has to get away from daily commuting and against the pressure of the eight-to-five routine. It meant saving a lot of time that used to be wasted commuting and a great deal of money that used to be spent in overhead. Experienced has taught me that you can have more free time and a healthier or more productive lifestyle.

- What income group I want to concentrate on in the design process?

Philippines are classified as one of the lower-middle income economies by the World Bank. It might be interesting to aim the study first to the lower income then go up as it progresses so we can direct our efforts in crafting an effective socialized and economic housing plans and designs.

- What is the size and dimension of the space for work that is enough for one who will go into home business? Where can be possibly located in the house?

Depending on the kind of business they are into, we can maximize the use of space and possibly anticipate an adjacent space for extension. Granting it has only a very limited space then designers has to provide provisions of anchors and dowels for future expansion. Let's say, if one has to be in catering business then kitchen could be the top consideration in the space programming including its location and access. So, with tailoring, electronic repair, and other similar service-oriented utilizing living or bedroom area in a day time for business and

private areas at night time. Our options are limitless, as an architect we can really play around with good choice of options.

- What general considerations in the indoor environment that need to be addressed during initial phase?

...”From the physical point of view, the indoor environment may be considered in terms of different components, such as lighting, color design, acoustics, ambient temperature and air quality⁹” play an important role in integrating a dwelling and a place for work.

To achieve good indoor environment, these factor should be maintained within the zones of comfort.

- How do we integrate workspace in the house and still maintain privacy in family affairs?

In the advent of information and service economy, society has changed the way they do business. With the proper equipment, much of the work is done easily in a spare bedroom as in an office. People in this income group generally would not really mind about privacy until they are getting a little off with their situation. First and foremost, they have to improve their economic condition side by side with their household until further economic stability.

- What is the price consideration in total construction cost?

Actually, you don't add up additional cost for reasons that you consider early on even before constructing. Cost is becoming an issue unless so much change orders in done during construction. Also, incremental housing technique could be a wise idea for construction budget considerations.

- How will it affect general condition in the neighbourhood?

Development of this kind is getting inevitable. Left and right are expanding without you knowing and before you know it, they have mushroomed altogether. Strong community participation and support could be of great help in terms of economic and social patterns and activities.

- Since their women were usually left home to tend for their household then what motivation to support women in home business enterprise?

⁹ Planning for Good Indoor Lighting by Rikard Kuller, Building Issues, HDM, Lund University.

It would be a good thing to entice one to go for home business since household chores is done after everybody leaves home. Their husband's meagre income would somehow be augmented by their home business effort at home and eventually lay a foundation of a bigger enterprise later on which the husband will catch up with her.

- What lessons can be learned from existing home business enterprise in the community that promote this concept?

With these consideration in mind, designing a model shelter types that is suited for one who do home business and as well as community business development through government programme like One Town, One Product seems worthy to pursue. Training and community facilities have to be provided so they can access avenue for human resource upliftment and skills development. Government has to consider that informal is normal and has a potential to contribute eventually to the general economy.

During our short visit in Tunisia for our regional training, I have observed that this concept is universal in nature. I have consciously notice during our study visit to one of the on-going projects of Urban Rehabilitation and Renovation Agency (ARRU). In these few photos I have taken, the owners have converted their front spaces into commercial businesses.



a. Living room



b. Extra bedroom



c. Kitchen

5 Conclusion

Working Home is a synergy of making a house a business machine towards poverty alleviation as well as for economical enhancement. Not just in the lower income group but also in the middle economic class where technology and equipment has changed so much in the past years for having one to do business at home. From informal networking to formal business establishment are actually done either in their own backyard, spare bedroom or an extension in front of their meagre plot. As an architect and a college instructor, students in this

field has to understand early on regarding their social responsibility in doing good to the general public in housing the poor. New options have to be expedited to address the real need of its users.

References

Edwards, Paul and Sarah

1994 *Working from Home: Everything you need to know about living and working under the same roof*. Tarcher/Putnam, NY, USA.

Tannerfeldt, Goran and Per Ljung

2006 *More Urban. Less Poor: An Introduction to Urban Development and Management*. Earthscan, London.

Zahir, Shehzad

2008 *Shelter as a Workplace: Towards a conceptual framework for the integration of home and workplace for lower income people of Dhaka, Bangladesh*. HDM Alumni Paper.

National Statistic Office (NSO), Philippines, <http://www.census.gov.ph>

National Economic Development Authority (NEDA), Philippines 2004,

Medium Term Philippine Development Program, 2004-2010.

National Housing Authority, Philippines, <http://www.nha.gov.ph>

Housing and Land Use Regulatory Board (HLURB) 1997

Revised Guidelines on Batas Pambansa 220