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**Building the Statistical Capabilities at Subnational
Level through SHRDP: The Region VI Experience**

by

Presentacion A. Penpillo

For additional information, please contact:

Author's name:	Presentacion A. Penpillo
Designation:	Statistical Coordination Officer V and Regional Head – Region VI
Agency:	National Statistical Coordination Board
Address:	Luna Street, La Paz, Iloilo City
Telephone:	(033) 329-9513
Fax:	(033) 329-0513
E-mail:	nscb6@yahoo.com

Building the Statistical Capabilities at Subnational Level through SHRDP: The Region VI Experience

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I. Background

Capabilities in management of statistical information are very essential to effectively and efficiently deliver the products and services provided by the Philippine Statistical System (PSS). Cognizant of this importance, more qualified, competent, effective and efficient statistical work force must be developed to further enhance the delivery of these products and services. Recognizing this need at the sub-national, the Statistical Research and Training Center (SRTC), the research and training arm of the Philippine Statistical System (PSS), designed modules including training manuals for different types of statistical workers and implemented the “Statistical Human Resource Development Program (SHRDP) for the Regions”. This is a revival of the so-called Statistical Manpower Development Program (SMDP) undertaken by NEDA in the mid-seventies.

The SHRDP is a program under the human resource development component of the Re-engineering the Government Statistical Services Project - Phase II of the National Statistical Coordination Board (NSCB). Under the human resource development component being implemented by SRTC, there are two major activities, namely: (1) statistical education or degree program, and (2) non-degree training program. The SHRDP for the Regions is classified under the non-degree training program.

1. Objectives of the Training Program

Broadly, the SHRDP for the Regions is a non-degree training program aimed at supplementing the academic knowledge of career statisticians and other statistical workers with basic and practical know-how in statistics, which ultimately will improve their expertise at various levels of competencies for a more efficient and effective performance of statistical functions in their respective offices/institutions.

The specific objectives of the program are as follows: (i) design a training program for statistical personnel at subnational supportive of the objective of the Re-engineering the Government Statistical Services Project - Phase II; (ii) develop training manuals and materials supportive of the delivery of said training program; (iii) pilot the developed training program including the training materials; and (iv) draw up specific implementation plan and strategies for program institutionalization. The first and second specific

¹ Statistical Coordination Officer V of National Statistical Coordination Board Regional Division 6.

objectives were undertaken in-house by SRTC utilizing the results of training needs assessment conducted by the NSCB, NSO and other statistical agencies supplemented by data gathered by SRTC itself from the participants of its training programs, and consultations with program partners.

The third and fourth objectives were implemented at the subnational in collaboration with program partners and other agencies and institutions.

2. Target Beneficiaries of the Training Program

The SHRDP for the Regions was developed for building the capability of statistical workers in the subnational statistical system. This includes statistical personnel of regional line agencies/offices (RLAs/Offices); schools, colleges and universities; and local government units (LGUs) at the provincial, city and municipal levels, directly involved in statistical work and statistical development activities of their respective offices. They are either statistician (by profession or by plantilla or agency-designated statistician (ADS), researcher, economist, professor/instructor, analyst, and admin-based personnel engaged in statistical work as part of their agencies' major function or as part of their administrative and/or regulatory functions.

3. Modules of the Training Program

The three modules specially designed by SRTC for statistical workers for implementation at the subnational are as follows:

- 3.1 **Module 1 - "Statistics Course for Primary Level Statistical Workers"** is intended for primary level statistical workers who do not have any formal background in statistics in college but handling statistical work in the agency. This module aimed at providing the statistical personnel with knowledge on basic statistical methods as applied to statistical data they are collecting and/or compiling to enable them to perform their statistical work with utmost efficiency. The module also introduces the statistical personnel to data analysis and technical report writing to help them prepare themselves for greater statistical responsibilities in their offices.
- 3.2 **Module 2 - "Statistics Course for Intermediate Level Statistical Workers"** is designed for intermediate level statistical workers who have taken elementary statistics course in college. The module was aimed at broadening the working knowledge of intermediate level statistical workers on survey methodology and statistical operations. The module provides the personnel with basic theory and practice in primary data gathering including the compilation of data from the administrative records to help them effectively perform their duties as statisticians.
- 3.3 **Module 3 - "Advanced Statistics Course for Professional Statisticians"** is designed for the professional group of statisticians

who already have a working knowledge of statistics. This includes practitioners on statistics, those who have practiced Statistics for not less than five years either as a survey statistician, researcher, analyst or instructor. The module aimed to further enhance the skills of professional statisticians using tools in analyzing the data generated through surveys and censuses, compiled from the administrative forms, or gathered from statistical publications to search for answers to research problems in their own field of specialization.

4. Role of SRTC in Implementing the Training Program in the Region

As mentioned earlier, the SRTC as the accredited training institution of the PSS, developed the requisite modular training courses for the purpose of further accelerating the development of statistical manpower base at the sub-national.

In the implementation of the training courses, SRTC had the following responsibilities: (i) make representations to the Regional Development Council VI (RDC VI) through the Regional Statistical Coordination Committee VI (RSCC VI) the plan to undertake the SHRDP training program in the region; (ii) identify program partners in the region for the conduct of the training modules; (iii) provide a forum for program partners for clearing the basic requisites of the program; (iv) provide a training coordinator (TC) to oversee the overall supervision of the training program in the region; (v) finance the honoraria of the resource persons/lecturers and transportation expenses of out-of-town lecturers and its TC; (vi) provide the certificate of completion to successful trainees; (vii) conduct the evaluation of the resource persons and training program at the end of every training course; and (viii) apply for accreditation for an equivalent academic unit/s earned by the trainees in the training course.

5. Program Partners of SRTC in the Region and Their Roles in Implementing the Training Program

Like in the past undertakings in Region VI, in view of the absence of an SRTC Office in the region, it worked closely with the RSCC and NSCB Regional Division VI (NSCB RD VI) in identifying partner-agencies in the region. Program partners in the region included the: (i) RSCC VI; (ii) RDC VI; (iii) NSCB RD VI; (iv) Commission on Higher Education-Higher Education Regional Office VI (CHED-HERO VI); (v) Philippine Association of State Universities and Colleges in Region VI (PASUC VI) through West Visayas State University (WVSU); and (vi) Philippine Statistical Association Region VI Chapter (PSA VI).

The partner-agencies were officially informed about the SHRDP program in an executive briefing conducted by the SRTC Executive Director in the region, where the expected roles of each agency/institution were discussed. The roles formed part of the Memo of Agreement executed between the SRTC and the partner-agencies.

5.1 The Regional Statistical Coordination Committee (RSCC)

As the highest policy-making body of statistics in the region, RSCC served as liaison between the RDC and SRTC and program partners in the region. Specifically, it assumed the following roles: (i) recommend agencies and institutions with resources to be partners in program implementation; (ii) through resolution, designate agency(ies)/institution(s) as local coordinators to ensure a properly-coordinated and well-managed program implementation; (iii) provide support through issuance of resolutions enjoining agencies/offices; colleges and universities; and local government units to send their statistical personnel to the training; (iv) evaluate qualified resource persons for the training; (v) invite participants to the training; and (vi) determine the registration fees to be charged to the participants.

Three support actions in the form of resolution were generated from the RSCC supportive of the SHRDP implementation at the subnational: (i) RSCC Resolution 3, Series of 2002 “Resolution Strongly Supporting the Pilot Implementation and Institutionalization of the Statistical Manpower Development Program (SMDP) in Region VI by Integrating Its Program of Activities in the RSCC Work Program”; (ii) RSCC Resolution 3, series of 2002 “Resolution Designating the NSCB RD VI and PSA VI as Local Coordinators of the SMDP in Region VI”; and (iii) RSCC Resolution 4, series of 2002 “Resolution Requesting RDC VI to Support the Pilot Implementation and Institutionalization of SMDP in Region VI and Enjoining the Governors, Mayors and Directors/Heads of Government Agencies to Send their Statistical Personnel to Participate in the Training Program.”

5.2 The Regional Development Council (RDC)

The RDC lent support to the program through issuance of resolutions supporting at the same time enjoining the directors/heads of regional line agencies/offices, LGUs, SUCs, and academe to support the SHRDP implementation in the region. Two resolutions were issued to this effect, as follows: (i) RDC VI Resolution No. 44, series of 2002 “Resolution Supporting the Pilot Implementation and Institutionalization of the SMDP in Region VI and Enjoining the Governors, Mayors and Directors/Heads of Agencies to Send their Statistical Personnel to Participate in the Program”; and (ii) RDC VI Resolution No. 44-a, series of 2002 “Resolution Recommending the Change of the Program Title “Statistical Manpower Development Program (SMDP)” to “Statistical Human Resource Development Program (SHRDP).” RDC support was also manifested through making its resources available for use of the training management for their meetings and conferences.

5.3 NSCB Regional Division VI

The NSCB, via its Regional Head designated by SRTC as the Regional Program Coordinator (RPC), is the important link between SRTC and program partners and other program collaborators in the region. As such, NSCB RD VI receives instructions, policies and regulations pertinent to the training

program from SRTC for discussion with partner-agencies, after which observations and agreements are fed back to SRTC for action. Specifically, NSCB's tasks in program implementation were as follows: (i) facilitate the requirements and pre-requisites of the program implementation, e.g., memo of agreement; arrangements for resource persons; arrangements for accommodation and training facilities; arrangements for field laboratory/practicum site(s), and the like; (ii) assume leadership in dispensing cases relevant to the training program; (iii) assistance to SRTC TC in the day-to-day management of the training program; and (iv) attend to administrative matters and logistical support.

5.4 **Commission on Higher Education-Higher Education Regional Office VI (CHED-HERO VI)**

CHED's support to the program was manifested through: (i) giving the widest publicity of the training program both for pilot and institutionalization; (ii) issuing memo circular enjoining all higher education institutions (HEIs) to send their statistical personnel to train on the different modules; (iii) providing list of qualified resource persons for the training; and (iv) providing assistance in the evaluation of the pilot training programs and make recommendations for the improvement of the program for institutionalization.

5.5 **The Philippine Association of State Universities and Colleges in Region VI (PASUC VI) through West Visayas State University (WVSU)**

PASUC, an association of state universities and colleges (SUCs) had a very vital role in the conduct of the training program. It authorized one of its member-institutions, the WVSU, to represent the association as program partner in the SHRDP implementation. WVSU has the resources required in the implementation of the SHRDP program. It has an institute of information and communications technology (IICT) and offers Research and Statistics courses, both graduate and undergraduate levels. Moreover, WVSU's strategic location in Iloilo City gives easy access to participants coming from all directions in the region. Specifically, WVSU discharged the following responsibilities in the conduct of the training program: (i) making available the facilities needed for the training such as computer laboratory, computers, accommodation facilities, catering services, and training rooms at minimal costs/rentals; (ii) assisting in the region-wide dissemination of the SHRDP program through issuance of memo circular and directive to PASUC member-institutions to send participants to the training; and (iii) providing list of prospective resource persons from PASUC member-institutions that can be tapped for the conduct of the training modules.

5.6 **The Philippine Statistical Association Region VI Chapter (PSA VI)**

As an organization of professional statisticians, PSA has the pool of statistical experts and technical people. A number of resource persons/lecturers for specialized topics were tapped from the PSA pool of experts. In addition, PSA officers provided assistance to the secretariat during the

training.

6. When and How the Training Program Was Implemented

As provided for in the Strategies for Implementation of SRTC, Region VI (Western Visayas) is the venue for the pilot implementation of Module 2 “Statistics Course for Intermediate Level Statistical Workers,” Region X (Cagayan de Oro City) for Module 1 “Statistics Course for Primary Level Statistical Workers,” and Region IV (Southern Tagalog), for Module 3 “Advanced Statistics Course for Professional Statisticians.”

Program implementation in Region VI started in 2002. Financing was made possible through a cost-sharing scheme with SRTC and program partners as well as participating LGUs and agencies, i.e., SRTC subsidized the honoraria and travel expenses of resource persons and its TC; PASUC/WVSU designed for a minimal costing of rentals of IT and other facilities; and LGUs and agencies financed for the modest registration fee and other expenses of their trainees.

The training program was conducted in two phases; Phase I, pilot-training phase, undertaken within the period June-December 2002; and Phase II, the institutionalization phase, which commenced on May 2003.

6.1 Phase I: Pilot Training

Originally, Region VI was assigned to host the piloting of Module 2. However, for one reason or the other, piloting of Module 3 was also pursued in Region VI.

6.1.1 Pilot training of Module 2 - Statistics Course for Intermediate Level Statistical Workers

Module 2 training was undertaken from May 13-25 and June 2-4, 2002 held at the Computer Laboratory of WVSU, Iloilo City. The 12-day computer-based training consisted of 10 days classroom session and one (1) day field immersion for data gathering, after which the trainees were allowed to go back to their respective stations for two (2) weeks to work on their research report, and convened again in the training venue for three (3) days for the finalization and presentation of the research output.

The training was divided into two parts: Part 1 dealt on survey methods with three (3) days lectures on the theoretical aspect of sampling supplemented by seatwork and exercises, and seven (7) days on statistical operations, which covered hands-on questionnaire construction, data collection, encoding and tabulation of the data gathered. Part 2 focused on research report preparation out of the data gathered. The research outputs were presented by the trainees to a panel composed of the heads of the participating agencies, LGUs and academe, SRTC officials and other invited guests from the RSCC and other partner-agencies.

6.1.2 Pilot training of Module 3 - Advanced Statistics Course for Professional Statisticians

Module 3 was conducted in two 5-days-a-week 8-hours-a-day shifts, from November 25-December 6, 2002 held at the computer laboratory of WVSU, Iloilo City. Weekend holidays served as breaker for the trainees. The 10-day training consisted of lectures supplemented with illustrations and seatwork exercises. The training was entirely computer-based with application of Statistical Package for Social Sciences (SPSS) software. A 1:1 computer-trainee ratio afforded each trainee adequate hands-on exercises. The major output of the training was a statistical report, which is a statistical analysis of a research problem relevant to the trainee.

6.2 Phase II. Institutionalization

Preparations for institutionalization of the training program followed immediately after the pilot stage. The following preparatory activities were undertaken prior to the conduct of the modular training courses:

6.2.1 Conduct of participatory rapid training need assessment (PRTNA)

Simultaneous with SRTC's revising of the training modules, NSCB RD VI in coordination with RSCC conducted the participatory rapid training need assessment (PRTNA) among target beneficiaries. Training needs were assessed by a one-paged survey tool sent to heads of RLAs/Offices, Presidents of SUCs, and LEOs of LGUs for their statistical unit/division to comply with. PRTNA data were matched with those gathered from the trainees' feedback forms on Modules 2 and 3.

The PRTNA had twofold utilization; (1) find out the immediate and specific training needed in order to determine the sequencing of the conduct of the training modules; and (2) draw information on the extent of the knowledge and skills of prospective participants for perusal of the resource persons/lecturers.

6.2.2 Re-scheduling based on the revised modules

Result of the pilot training, the actual sub-national experience, was a rich source of vital inputs in improving the modular training courses and strategies for program institutionalization. Basing on the results, Module 2 was divided into sub-modules, i.e., Sub-module 1 "Survey Methods" and Sub-module 2 "Questionnaire Design and Statistical Operations." Likewise, Module 3 was divided into sub-modules, Sub-module 1 "Inferential Statistics," and Sub-module 2 "Regression Analysis." Given the revisions, the schedule of activities for the implementation of the training modules was accordingly revised.

6.2.3 Conduct of the training modules using the revised modules.

Based on the PRTNA results, Sub-module 2 of Module 2 and Sub-

module 1 of Module 3 were recommended for immediate conduct.

6.2.4 Institutionalization Training of Sub-module 2 of Module 2 - Questionnaire Design and Survey Operations (2 batches)

Sub-module 2 of Module 2 training was conducted from May 26-30, 2003 at the computer laboratory of WVSU, Iloilo City. The five-day computer-based training composed of three (3) days classroom lectures, one (1) day field immersion for data gathering, and two (2) days preparation of the statistical report and presentation of the research output. Actual data gathering was undertaken in a rural barangay of Maribuyong, Dueñas, Iloilo, located at the central part of the province of Iloilo.

6.2.5 Expanding the coverage of trainees to outside Region VI

The large group of registrants in the first training on Sub-module 2 of Module 2 paved the way to the conduct of a second batch to accommodate the excess registrants and the request of other agencies outside the host region. Upon approval of SRTC, registrants from Region VII (Central Visayas) and Region VIII (Eastern Visayas) were accepted to the training.

The second batch on Sub-module 2 of Module 2 was conducted on August 4-8, 2003 held at the computer laboratory of WVSU, Iloilo City. Field immersion for data collection was undertaken in a rural barangay of Nanga in the municipality of Guimbal, located in the southern part of the province of Iloilo.

6.2.6 Institutionalization of Sub-module 1 of Module 3 - Inferential Statistics

Sub-module 1 of Module 3 intended for the professional statisticians was undertaken on November 10-14, 2003 held at the computer laboratory of WVSU, Iloilo City. The module, which lasted for five (5) days, dealt on five major topics, namely; measures of probability, exploratory data analysis, test of hypothesis, correlation analysis, and odds ratios. The training consisted of lectures supplemented by illustrations and computer hands-on seatwork exercises using SPSS software.

The major output was a statistical report applied with appropriate statistical tools on a research problem of interest to the trainee.

II. Accomplishments of SHRDP in Region VI

The succeeding documentation summarizes the SHRDP accomplishments, both in the pilot and institutionalization stages, in Region VI.

1. Training modules conducted by year by type of training

Five modular training courses were conducted from May 2002-November 2003. The two pilot training courses (Modules 2 and 3) were both

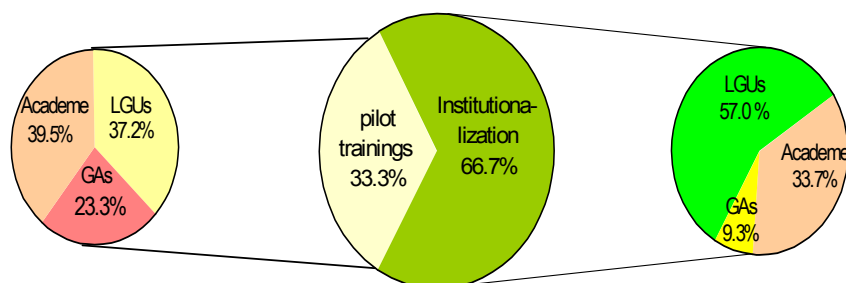
carried out in 2002. Three other training courses (Sub-module 2 of Module 1 in 2 batches and sub-module 1 of Module 3) were conducted during the institutionalization phase in 2003 (Table 1).

Table 1. Training Modules Conducted by Year by Type of Training

Modules Conducted	Year	
	2002	2003
	Pilot	Institutionalization
Module 2	1	
Module 3	1	
Sub-module 2 of Module 2		2
Sub-module 1 of Module 3		1
Total	2	3

2. Distribution of trainees by type of training

A total of 129 personnel were trained on five (5) training modules, 46 (33.3%) in the pilot phase and 86 (66.7%) in the institutionalization phase. In the pilot phase, 16 (37.2%) participants were from LGUs, 17 (39.5%) were from RLAs/Offices, and 10 (23.3%) were from the academe. In the institutionalization phase, of the 86 trainees, majority was from LGUs (49 or 57%). Twenty-nine (33.7%) and 8 (9.3%) trainees were from the academe and RLAs/Offices, respectively (Figure 1).



Trainees	Pilot		Institutionalization		Total N
	N	%	N	%	
Total	43	66.7	86	33.3	129
LGUs	16	37.2	49	57.0	65
Academe	17	39.5	29	33.7	46
RLAs/Offices	10	23.3	8	9.3	18
LGUs	16	37.2	49	57.0	65

Figure 1. Distribution of Trainees by Phase of Training

3. Distribution of trainees by module

In the pilot stage, Module 2 was well participated in by LGUs (16 or 69.6%). Only seven (30.4%) were from RLAs/Offices and none from the academe. Module 3 was dominated by trainees from the academe (17 or 85%) with only three (15%) from RLAs/Offices and none from the LGUs. On the institutionalization phase, the two batches of Sub-module 2 of Module 2 were predominantly LGU-participated. Out of 66 trainees, 39 (59.1%) were from LGUs, 33 (34.8%) were from the academe, and only 4 (6.1%) from RLAs/Offices. Consistently, Module 3 was well-attended also by LGUs with 10 (50%) trainees. The six (30%) and 4 (20%) other trainees were from the academe and RLAs/Offices, respectively (Figure 2).

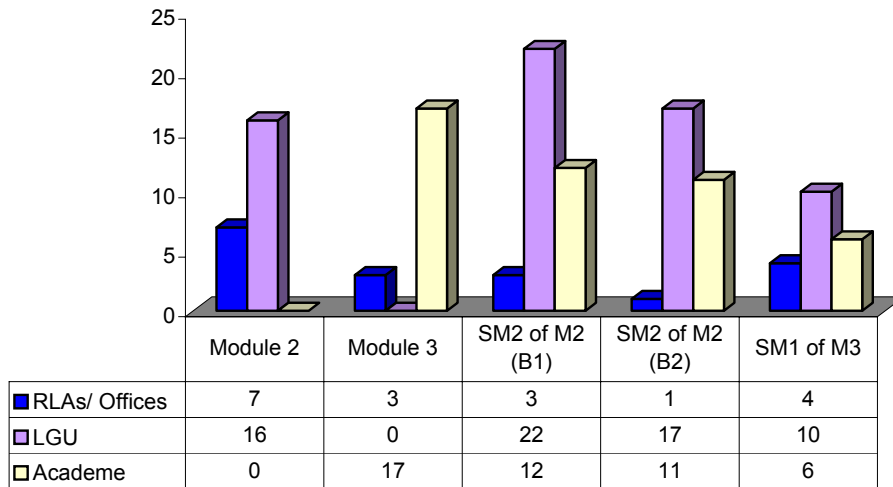


Figure 2. Distribution of Trainees by Training Module

4. Distribution of trainees by region

Out of the 129 trainees, 112 (86.8%) were from Region VI, 10 (7.8%) were from Region VII and 7 (5.4%) were from Region VIII (Figure 3).

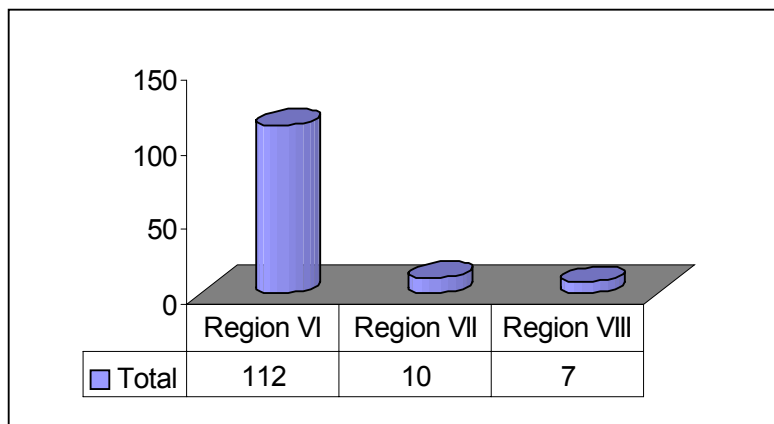


Figure 3. Distribution of Trainees by Region

III. Problems, Issues and Recommendations

The following are problems and issues gathered during the pilot and institutionalization phases of the training program and recommendations to resolve these problems:

Problem/Issue	Recommendation
1. Heterogeneity of participants	It is recommended that the participants should be grouped more or less homogeneously, either by task or by agency. The following groupings are suggested: (i) registrars/planning officers/clerical and other admin-based personnel; (ii) teachers in statistics/mathematics and statistics coordinators; (iii) LGU statisticians/ADSs; and (iv) RLAs/Offices statisticians/ADSs
2. The need for a Field Coordinator	A Field Coordinator (FC) shall be designated to attend to all the requisites of the immersion on data gathering including identification of guides and supervision of the trainees in the field.
3. Computer literacy level of participants	It is recommended that computer literacy level shall form part of the criteria in accepting participants especially for Module 3.

The trainees and resource persons and the training management as well found that inter-regional participation is a good mix in terms of interaction and exchange of ideas and experiences between and among the participants.

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Roberto N. Padua, Ph. D.

For additional information, please contact:

Author's name:	Roberto N. Padua, Ph. D.
Designation:	Vice-President for Research, Extension and International Affairs
Agency:	Mindanao Polytechnic State College
Address:	Lapasa, Cagayan de Oro City
Telephone:	(088) 856-4696
Cellphone:	(639) 920-2200365
E-mail:	rnpadua@yahoo.com