AN ASSESSMENT OF THE CARABAO UPGRADING PROGRAM (CUP) IN PILOT AREAS OF SAMAR: INPUTS TO PROGRAM ENHANCEMENT

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APPROVAL SHEET

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Juliet

DEDICATION

This piece of work

from a neophyte

is dedicated to the

Men . . . and Women

in agriculture

who . . .

dared to dream

and hope for a better tomorrow.

ABSTRACT

This study was conducted to assess the Carabao Upgrading Program (CUP) in pilot areas of Samar in order to generate valuable inputs to Program Enhancement. The study utilized the descriptive- evaluative research method using the survey questionnaire as the main instrument in gathering the needed data. Pertaining to the comparison of the perception of the respondents on the problems encountered relative to the implementation of the CUP, the two groups of respondents more or less gave the same adjectival rating, which is moderately felt. However, they differ in that the mean obtained from Program beneficiaries is 3.01 from the Program implementers, the mean obtained is 3.46. To ascertain whether the numerical differences were significant, the t-test was employed. The computed t-value of 3.162 proved to be greater than the tabular t-value of 2.201 at degrees of freedom =11 with level of significance set at 0.05 which led to the rejection of the null hypothesis "there is no significant difference on the extent to which the two groups of respondents feel the problems relative to the implementation of CUP". The two groups of respondents are in agreement in terms of the extent of implementation of the CUP along its four Program components on estrus synchronization (ES), artificial insemination (AI), pregnancy diagnosis (PD) and defluking, thus the null hypothesis to that effect was accepted. The Program beneficiaries and implementers manifested disparity in their perception on the extent of effectiveness of the CUP in addressing the Program concerns on poverty alleviation, nutritional improvement and people empowerment thus, the corresponding null

hypothesis tot that effect was rejected but they manifested essentially similar perception on the extent of effectiveness of the implementation of the CUP on income equity and distribution, which led to the acceptance of the null hypothesis to that effect.

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Chapter 1

THE PROBLEM AND ITS SETTING

Introduction

The carabao (*Bubalus bubalis Linn.*) or water buffalo is one of the most important domestic animals in the Philippines and believed to have been introduced into the Philippines by Chinese colonizers as work animals, sometime in 300 to 200 B.C. When the Spaniards came to the Philippine Islands, they found that the carabao was already in use to cultivate rice fields (Evaristo, 1915:123). Carabaos until now are raised primarily for use as draft animals, and secondarily for meat and milk production. Filipino farmers prefer to raise these animals because of their docile temperament and endurance for work (Bondoc, 1998:5). Cruz (1991:119) claimed, that buffaloes are still significant to Philippine agriculture since they still remain as a major source of draft power particularly for farm tillage operation despite the increasing rate of transformation from animal power to mechanical system of farming.

The Philippine Carabao Center (PCC), which includes a network of 13 regional centers and two national centers based at the University of the Philippines at Los Baños (UPLB) and the Central Luzon State University (CLSU) in Muñoz City, Nueva Ecija, is an agency attached to the Department of Agriculture (DA) and was created by virtue of Republic Act number 7307, otherwise known as the Carabao Act of 1992 and became operational in the

second quarter of 1993. It is mandated to promote the development of carabao as source of draft, meat, milk and hide, as direct and indirect means of improving the general well being of the millions of rural families. The Carabao Upgrading Program (CUP) is a continuing and organized effort of the government through the Department of Agriculture to increase the genetic potential of the native carabao by crossbreeding it with murrah that would result in the development of buffalo based and related enterprises aimed at increasing income and nutritional status of the farming communities. The Carabao Upgrading Program (CUP) as a socio-economic program addresses national concern on poverty alleviation, nutritional improvement, income equity and distribution and people empowerment.

Artificial Insemination (AI) that uses estrus synchronization (ES) is identified as one of the technologies to be applied in the Carabao Upgrading Program considering its potential and its increasing acceptability among farmers, which are the target beneficiaries. Artificial insemination in mammals was first introduced in 1780 by an Italian physiologist named Lazaro Spallanzani but it was used and developed in Russia by Ivanoff at the beginning of the twentieth century. The first large-scale use of artificial insemination in Russia was done in 1930 where nearly 1 million sheep and 20,000 cows were bred artificially (Rice 1970:19).

The application of artificial insemination that uses estrus synchronization is considered most practicable because of the following reasons: scattered

distribution of female carabaos in the villages, "silent heat" that is inherent in carabaos, and lack of experience among farmers in heat detection (Momongan et.al., 1992). Artificial insemination as a tool in Carabao Upgrading Program is more than just impregnating the female. It is used to introduce the best bulls. Since the use of best bulls is maximized by way of collecting their semen to serve as many female as possible, something which is not normally available for natural mating, a donor can produce an average of about 5,000 doses per year, which can serve about 2000-3000 female. When used for natural mating, a bull can serve only a maximum of 50 female per year.

There is a need to improve the carabao's ability as more than just a plain beast of burden. It is because improving the animal's productivity improves the farmers' ability to generate income. The Province of Samar has a total of 589,373 human inhabitants consisting of 115,493 households (National Statistics Office, 1995) wherein small farmers constitute an overwhelming majority. They depend on farming as their main source of income and rely on carabao as their inseparable partner in farming activities because farm machineries are very expensive. Aside from draft power, carabao's are also considered as one source of meat and milk in the Province. Nevertheless, its potential for meat and milk has not been fully exploited on account of the following technical problems, which limit its productive efficiency and utilization: 1) Poor reproductive capacity. Carabao's are late maturing animal with long gestation period requiring an average of 325 days and a long calving interval. They exhibit weak

estrus phenomenon or "silent heat" which makes detection of estrus difficult; 2) Low productivity. Poor feeding and management practices contribute to low calf drop (40-45%) in natural mating, low milk and meat yield and poor draft capability because of small body size; 3) High mortality. This is essentially true among caracalves primarily due to the high incidence of infections and parasitic diseases. It seems that carabao owners do not practice health care system and disease prevention (Philippine Recommends Series, 1997:15).

In view of this perceived need on the part of the farmers for an upgraded carabao stock, the Office of the Provincial Agriculturist submitted a project proposal to the Provincial government of Samar for a Carabao Upgrading Program in the Province. The proposed budget for the program was 600,000 pesos and will initially cover the five municipalities of Basey, Sta. Rita, Villareal, Pinabacdao and Calbiga as pilot areas with program duration of five years. According to Taran (1997:3) the choice of the five municipalities was based on the number of carabao population which is 1,014 for Basey, 1,437 for Sta. Rita, 949 for Villareal, 634 for Pinabacdao and 816 for Calbiga (BAS, April 1996), number of target beneficiaries which is 10% of total household (NSO, Sept. 1995) viz. 843, 569, 423, 226 and 366 for Basey, Sta. Rita, Villareal, Pinabacdao and Calbiga respectively and rice land area which is as follows: 5,176 hectares for Basey, 1,656 hectares for Sta. Rita, 1,064 hectares for Villareal, 660 hectares for Pinabacdao and 2,306 hectares for Calbiga.

The Carabao Upgrading Program was approved for implementation by the Sanggunian Panlalawigan on October 1996 and was allocated a budget of 500,000 pesos. On the 23rd of June, 1997, a Memorandum of Agreement was signed at Basey, Samar, Philippines by the Department of Agriculture through its Secretary, Honorable Salvador H. Escudero III, the Philippine Carabao Center through its Executive Director, Dr. Libertado Cruz, the Provincial Government of Samar, through the governor, Honorable Jose A. Roño and the local government units of Basey, Sta. Rita, Villareal, Pinabacdao and Calbiga, through their respective local chief executives implementing the Carabao Upgrading Program (CUP) in the Province with the aforementioned municipalities as pilot areas.

The main goal of the Carabao Upgrading Program is to improve the phenotypic and genetic make-up of the native carabao in the Province of Samar by crossbreeding with murrah through artificial insemination (AI) process and to improve the income and nutrition of the rural farming families. Specifically, it aims: 1) to establish a Carabao Upgrading Program Artificial Insemination Center at Basey, Samar for the storage and supply of frozen semen from the Philippine Carabao Centrer (PCC); 2) to conduct artificial insemination to breeder female carabao in the five pilot Municipalities of Basey, Sta. Rita, Villareal, Pinabacdao and Calbiga; 3) to attain healthy calf drop in order to increase dwindling carabao population in the Province; 4) to conduct regular (every six months) vaccination and defluking of the breeders as general health preventive measures.

The Carabao Upgrading Program is a long term development program and requires the coordinated effort and linkages among the Office of the Provincial Agriculturist through its artificial insemination trained personnel, the local government units of the five municipalities through their respective Municipal Agricultural Officer and technologists, the Department of Agriculture Regional Field Unit 8 (DA-RFU 8) and the Philippine Carabao Center at Leyte State University (PCC at LSU) to ensure its continuing and efficient implementation.

At present, the Carabao Upgrading Program in the Province has been expanded to cover the municipalities of San Sebastian, Hinabangan, Paranas, Motiong, Jiabong, Catbalogan and Talalora but an assessment of the Program has yet to be conducted. Hence, the reason for this research, which is to assess the Carabao Upgrading Program (CUP) in the five pilot Municipalities of Samar and to come up with conclusions and recommendations that will serve as inputs to program enhancement. It is hoped that the result of this study would give a concrete basis for the Program implementers, local government units and planners to initiate policy redirections that will be most helpful to the beneficiaries in particular and the community in general.

Statement of the Problem:

This study was conducted to assess the Carabao Upgrading Program (CUP) in pilot areas of Samar in order to generate valuable inputs to Program

Enhancement. The assessment was based on the perceptions of the two groups of respondent: the Program beneficiaries and the Program implementers.

Specifically, the study sought to answer the following questions:

What is the profile of the program beneficiaries with respect to:

1. What is the profile of the Program beneficiaries with respect to:

   1.1 age and sex;

   1.2 civil status;

   1.3 average family income per month;

   1.4 family size;

   1.5 educational attainment, and

   1.6 number of carabaos owned?

2. What is the profile of the Program implementers with respect to:

   2.1 age and sex;

   2.2 civil status;

   2.3 average family income per month;

   2.4 family size;

   2.5 educational attainment, and

   2.6 number of years of involvement in the CUP?

3. What is the extent of implementation of the Program as perceived by the beneficiaries and Program implementers in terms of the following components:

   3.1 estrus synchronization;

   3.2 artificial insemination;

3.3 pregnancy diagnosis, and

3.4 defluking?

4. Is there a significant difference between the perceptions of the two groups of respondent in terms of the extent of implementation of its various components?

5. To what extent is the implementation of the Program effective in addressing the following concern as perceived by the two groups of respondent:

5.1 poverty alleviation;

5.2 nutritional improvement;

5.3 income equity and distribution, and

5.4 people empowerment?

6. Is there a significant difference between the perceptions of the two groups of respondent on the extent to which the implementation of the Program is effective in addressing the four mentioned concerns?

7. To what extent do the respondents feel the problem relative to the implementation of the Carabao Upgrading Program along the four Program components?

8. Is there a significant difference in the extent to which the two groups of respondent feel the problem relative to the implementation of CUP along the four Program components?

9. What comments and suggestions can be given by the respondents relative to the implementation of the Carabao Upgrading Program in the Province of Samar?

10. What inputs can be drawn to enhance the Carabao Upgrading Program based on the findings of the study?

Hypotheses

Based on specific questions in the study, the following hypotheses were formulated and tested:

1. There is no significant difference on the perception of the Program beneficiaries and Program implementers on the extent of implementation of the following Program components:

1.1 estrus synchronization;

1.2 artificial insemination;

1.3 pregnancy diagnosis, and

1.4 defluking.

2. There is no significant difference on the perception of the two groups of respondent on the extent to which the implementation of the program is effective on the aspects of:

2.1 poverty alleviation;

2.2 nutritional improvement;

2.3 income equity and distribution, and

2.4 people empowerment.

3. There is no significant difference on the extent to which the two groups of respondent feel the problems relative to the implementation of the Carabao Upgrading Program along the four Program components.

Theoretical Framework

This study is anchored on contingency management theory, which is based on the premise that the actions or approaches managers should take depend on the situation and its variables. Each situation encountered, although possibly similar to other experiences has unique characteristics (Plunkett/Attner 1985: 26). That is, different situations must be met in different rather than standard way. The best way to plan, organize, led or whatever is not subject to any one magical formula but is contingent upon the situation. Mary Parker Follett, talked of obeying the "law of the situation". She felt that the situation dictated what needed to be done. Fayol wrote of keeping principles flexible and capable of modification to fit varying circumstance (Wren & Voich 1976:45).

The flexibility principle mentioned by Koontz and O'Donnel (1980:71) is a worthy support to the contingency management theory. This principle applies to the building into plan an ability to change directions. To many managers, flexibility is the most important principle of planning. The ability to change a plan without undue cost or friction, to detour, to keep moving toward a goal despite changes in environment or even failure of plans has great value.

Flexibility is critical when the commitment is great and cannot be discharged in a short time.

The above - mentioned theory and principle applies to this study because management and implementation of a government program and in particular the Carabao Upgrading Program is a long - range process. The success and attainment of a desired goal is dependent on a lot of factors, which are most of the time beyond the manager's control. That is why, it is very important to be able to adjust to different situations that may arise in the course of the program implementation and become flexible. In the final analysis, what matters most in management is to achieve specific and predetermined objectives for the greater benefit of mankind.

Conceptual Framework

Figure 1 shows the conceptual framework of the study. As shown, the first box represented the locale of the study, also known as the research environment. This is actually a representation of the local government units (LGU) from which the two groups of respondent came from – the Program beneficiaries and the Program implementers.

The respondents assessed the Carabao Upgrading Program (CUP) in the Province of Samar as represented by the arrow connecting the first box to the second box located at the c enter of the paradigm.

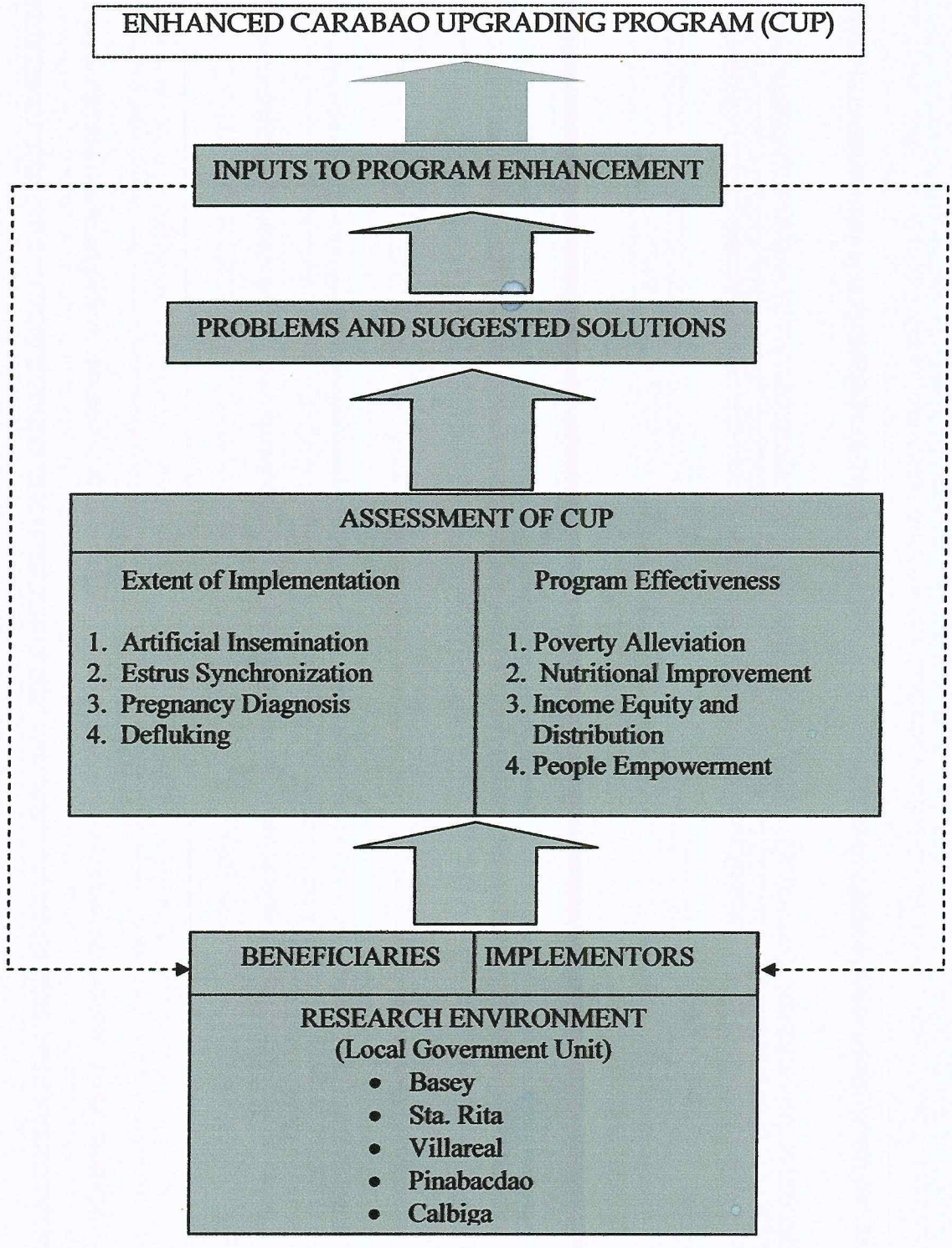

Figure 1: The Conceptual Framework of the Study

At the center of the paradigm was the assessment of the effectiveness and extent of implementation of CUP. The respondents assessed the extent of implementation of CUP in terms of its Program components: estrus synchronization, artificial insemination, pregnancy diagnosis, and defluking, and the extent to which the Carabao Upgrading Program was effective in addressing the Program concerns on poverty alleviation, nutritional improvement, income equity and distribution and people empowerment. The center box was connected by an arrow to the upper horizontal rectangle, which was on the identified problems and the suggested solutions as perceived by the two groups of respondent. This served as inputs to Program Enhancement, which maybe in the form of policy redirections and/or reengineering and strategizing, which in turn is important towards the attainment of the goal of this study, which is enhanced Carabao Upgrading Program (CUP).

Significance of the Study

This study is a pioneering endeavor in the Office of the Provincial Agriculturist. This were conducted in order to determine the extent of implementation of Carabao Upgrading Program and also to assess whether the program is effective in addressing the national concern on poverty alleviation, nutritional improvement, income equity and distribution and people empowerment.

It is hoped that the result of this study would benefit the farmers, program implementers, local government units, planners, community and future researchers.

Farmers. They are the main beneficiaries of the Program. Result of this study would have a direct effect on Program implementation and it is hoped that the farmers would find fulfillment and satisfaction in their improved living condition, brought about by the Carabao Upgrading Program and would be inspired to join and participate in more socio-economic programs of the government.

Program implementers. The results of this study would give the implementers useful insights and would serve as a guide towards improvement and flexibility of plans and strategies thereby enabling them to extend better service to its clientele, the farmers.

Local government units. Findings of this study would give inputs to the local government units that could be utilized towards sound management and policy redirections. Result of this study would also serve as a framework toward developing consistent and realistic socio-economic programs with wider acceptability.

Planners. Results of this study would serve as a guide to planners in projecting future decisions and formulation of agricultural plans.

Community. The community would be greatly benefited by the results of this study because it will redound to the community through improved carabaos,

which are better farming partners and the ultimate effect would be effectively felt through increased farm products within the vicinity.

Future researchers. The findings of this study would serve as a reference and guide to future researchers who would choose to trudge along this path.

Scope and Delimitation

The Carabao Upgrading Program (CUP), which was formally launched on June 1997 covering five pilot Municipalities is still an on-going project and on July 2004, it has been expanded to other municipalities. This study was conducted to assess the extent of implementation of the CUP in pilot areas of Samar particularly on the Program components: estrus synchronization (ES), artificial insemination (AI), pregnancy diagnosis (PD) and defluking and on the Program concerns: poverty alleviation, nutritional improvement, income equity and distribution and people empowerment. This study also attempted to find out the problems and factors that directly and indirectly affect the implementation of the Program. The data were gathered from February to March 2006.

The assessment of the Carabao Upgrading Program (CUP) was limited only to the seven - year period specifically from the date of its inception on June 1997 to June 2004, which was the period focused on the five (5) pilot areas.

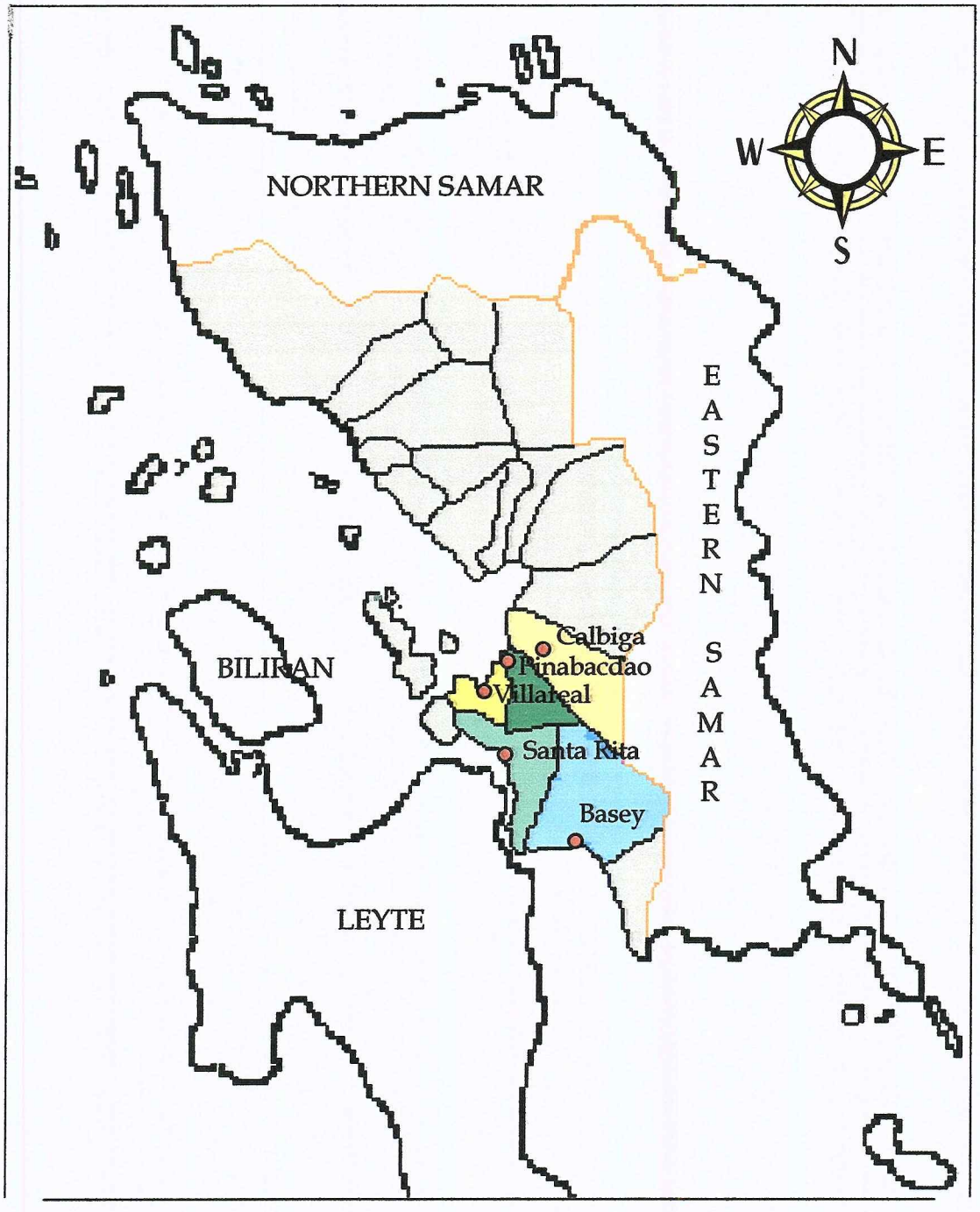

Figure 2. Map of Samar showing the geographical location of the municipalities where the study was conducted.

Definition of Terms

Terms used in this study are herein defined to provide the readers a common point of reference.

Animal breeding. This refers to the application of genetics and physiology of reproduction to animal improvement (Floresca 1994:1). As used in this study, the term refers to selective mating in order to produce an improved animal in terms of growth rate, milk production and carcass quality.

Artificial insemination. This refers to the impregnation of the female with semen from the male without direct sexual contact: also called eutelegenesis (Webster 1977:83). Operationally, this refers to the process of depositing spermatozoa into the female genital tract through the use of instrument rather than by bull or natural service.

Assessment. Figuratively, the term refers to an appraisal and an evaluation (Webster 1957:166). As used in this study, this refers to the analysis of a government program to determine the extent of accomplishment within a given period of time, whether goal and objectives were met, and to find out the problems encountered in the course of implementation and solutions to such problems, and to determine whether changes are needed in order to come up with a better and improved program.

Beneficiaries. The term as defined by Webster (1977:130) refers to one who receives or uses a charitable provision or privilege. As used in this study

the term refers to the farmers who participated in the Carabao Upgrading Program (CUP).

Bull. This refers to the male of domestic cattle or of some other animals (Webster 1977:175). Operationally, the term refers to the male carabao.

Carabao upgrading program. The Manual on Artificial Insemination (1999:1) defined the term as the efficient utilization of superior genetic materials to improve the production potential of local carabao. As used in this study the term means the genetic upgrading of native carabao to improve their milk production and increase their growth potential for meat and draft.

Crossbreeding. This is defined as the production of a strain or animal by interbreeding or blending two varieties (Webster 1977: 309). Operationally this refers to the mating of individuals belonging to different species, breeds, varieties or strains for the purpose of obtaining hybrid vigor or heterosis.

Defluking. This refers to the treatment of infection in grazing animals caused by Fasciola using antitrematodal drugs such as carbon tetrachloride and diamphenetide (Jones et. al. 1979:1064). As used in this study the term refers to the oral administration of drugs to carabaos in order to eliminate or inhibit the growth of flukes, thereby improving the physical well being of the carabaos.

Estrus. This is the peak of the sexual cycle in animals culminating in ovulation especially in female mammals (Webster, 1997:435). Operationally this refers to the state of receptivity in female carabaos. This is also called "heat".

Effective CUP. This refers to the goal of this study. The capability of the program in achieving desired result, which is the genetic upgrading of carabao for meat and draft.

Estrus synchronization. The Philippine Recommends Series (1994:23) defined the term as a management tool usually used in combination with artificial insemination wherein the technician manipulates the physiological condition of the animal to allow predetermined recurrence of estrus and insemination. This is a reproductive technique where a large number of female animals are induced to come in estrus at the same time so that they can be bred by natural mating or artificial insemination. This technique was primarily developed for dairy herd in order to make reproduction management more efficient. This term will be used in the present study as it is defined here.

F_1. This refers to the first filial generation, the first generation resulting from a given cross (Floresca 1994:2). Operationally, this refers to the offspring of a murrah buffalo and Philippine native carabao.

F_2 This refers to the second filial generation resulting from interbreeding of the members of F_1 (Floresca 1994:2). Operationally, this is the second generation after the parents or the offspring of the F_1.

Flukes or fasciola. A leaflike, parasitic, trematode worm infesting sheep and also man and other animals, also called fluke worm (Webster 1997:487). This refers to the flat worms that lodges on the liver of the carabaos. It will be used in this study as it is defined in the foregoing statement.

Implementers. Originally this refers to that which supplies a want, any means or agent for the accomplishment of a purpose (Webster 1997:635). As used in this study, the term refers to persons given the task and function to carry into effect the various concerns relative to the Carabao Upgrading Program.

Income equity and distribution. Gapuz (1994:2545) define it as the means for the reduction of poverty by increasing the income of the poor towards and over the poverty lines. As used in this study, this refers to the equal and fair diffusion of income.

Nutritional improvement. This is defined as the combination of processes by which the living organism receives and utilizes the materials necessary for the maintenance of its functions and for the growth and renewal of its components. Man must eat to live and an improved nutrition will affect in a high degree his ability to keep well, to work and be happy and to live long (Proudfit and Robinson 1960:3). Operationally, it refers to a better quality of nourishment, a balanced diet that will improve the individual's well being.

Poverty alleviation. A standard of living or level of income that is high enough to satisfy the basic needs (like water, food, clothing, shelter and basic health care) but still significantly lower than that of the majority of the population under consideration (http://en.Wikepedia). As used in this study, this refers to improving the living condition of the program beneficiaries.

Pregnancy diagnosis. The Manual on Artificial Insemination (1999:68) defined the term as a procedure wherein the uterus is palpated through the rectal

wall to determine the uterine enlargement and/or presence of fetus and fetal membrane occurring during pregnancy. Uterine palpation involves proper knowledge or the anatomical orientation of the uterus and thorough systematic approach and requires great care, practice and well - developed sense of touch. The term will be used as it is defined in the foregoing statement.

People empowerment. Newstrom and Davis (1997:571) defined empowerment as a process that provides greater autonomy to employees through the sharing of relevant information and the provision of control over factors affecting job performance. People empowerment refers to the expansion of assets and capabilities of poor people to participate in, negotiate with influence, control and hold accountable institutions that affect their lives (http://7214.253.104/search?q=cache: c). Operationally, the term means giving people an organic state of development process by involving them not only as beneficiaries but also as agents and motive force. It is not only giving the people the right to choose but giving the capability to widen their range of choices, that will help them become better and useful individuals in the community and the organization.

Chapter 2

REVIEW OF RELATED LITERATURE AND STUDIES

This chapter presents substantial information culled from documents, books, magazines, periodicals and studies conducted, which are significant and relevant to the present study. The literature and studies herein cited give valuable insights and information in the formulation and development of this particular research work.

Related Literature

According to **Arboleda** (1986:3), even before Gregor Mendel founded the modern concept of inheritance in 1865, many of the established breeds of livestock have already been in existence. Thus, farmers during the early days were considered to possess practical knowledge in livestock improvement through experience handed from generation to generation. The last century, however, saw the widespread and more intensive development in the theory and practice of animal breeding which resulted not only in the development of highly productive and efficient breeds of livestock, but also in narrowing the variability of genetic resources.

The genetic task in the field of animal breeding is twofold: 1) to find out through performance record what we have genetically (analysis) and 2) to raise the potential of productive efficiency by making better combinations of genetic materials through systems of breeding and selection (synthesis) (**Rice**, 1970:21)

Most genetic improvement in existence today are those which involve the basic genetic hypothesis that if an inferior genotype is crossed with a superior one and is continuously backcrossed, it would lead eventually to a locally adapted purebred (**Bhatt**, 1979:8). Artificial insemination is the most valuable tool for genetic improvement and estrus synchronization is an important tool usually used in combination with it. In this approach, the technician manipulates the physiological condition of the animal to allow predetermined occurrence of estrus by insemination (**PCCARRD**, 1994:19).

Craig, (1981:181) states that the history of artificial insemination could be traced back to as early as 1322. This was when an Arab chief successfully impregnated a prized mare through artificial method. However, the earliest documented use of artificial insemination was in 1970, when Spallanzani, an Italian physiologist was successful in producing pups from bitch by artificial insemination. Nineteen years later (1799), Hunter produced pregnancy in human by artificial insemination method. However, it was Ivanoff, a Russian physiologist, who started the investigation of artificial insemination in farm animals. He established a laboratory for further investigation in 1909 and initiated a large-scale investigation and practical application of the findings in 1922. Few advances in the genetic improvement of livestock had been as widely accepted as artificial insemination and its advent has considerably enhanced human capacity to propagate the superior germplasm of domesticated animals. Its application has been enormously increased with the availability of frozen

semen processing technology and its adoption for field use, which is now becoming a routinary practice for breeding livestock (**Mamuad**, 1999:247)

The genetic usefulness of artificial insemination is based upon the greater election differential possible. When each sire fertilized hundred of thousand of females, few sire are needed and only the very best can be chosen. **Baker,** (1967:45) quoted the late Sir John Hammond of Cambridge, who stated that the greatest development in agriculture in his lifetime was the use of artificial insemination. The current techniques of insemination are well established and detailed descriptions are available. Maximum fertility, however, will depend upon accurate estrus detection, the potential fertility of the semen and the proper handling prior to insemination, and insemination at the correct time during estrus (**Cupps and Drost**, 1979:49).

In the Philippines, insemination method was introduced in the 1950s, the same time that it was being used widely and commercially in the developed countries. The transfer of this technology and the training of local scientists on artificial insemination of cattle and carabaos were attributed to visiting professors from the United States. The technique was recognized as a major instrument for livestock development since its use fits in a local breeding program based on a continuous supply of the local or indigenous stock using semen from imported, often improved breeds (**Cruz**, 1993:68).

The first calf born out of artificial insemination method was produced on June 16, 1956 from a red sindhi cow inseminated with Holstein - friesian frozen

semen at the Dairy Training and Research Institute (DTRI) of Institute of Animal Science, University of the Philippines at Los Baños (UPLB). From then on, the use of this method of reproduction in large ruminants (dairy & beef cattle and carabao), horses and swine progressed. With collaborative efforts from various institutions, namely the Bureau of Animal Industry (BAI), Bureau of Agricultural Extension (BAEx), Agricultural Credit Cooperative Training Administration and College of Agriculture, University of the Philippines, the establishment of the Los Baños Artificial Insemination Center was inaugurated on March 27, 1957. From June 1960 to May 1961, the Center was able to artificially inseminate 170 cattle, 7 murrah buffaloes and 660 pigs. At that time, conception rate were 80percent in cattle, 50percent in carabaos and 70percent in swine.

Artificial insemination has been shown to work in the country since early 1950s, but its application especially in Carabao Upgrading Program was on a limited scale because of problems encountered. The following were the common problems encountered under Philippine conditions.

Inability to detect "in estrus" animals on time. Majority of the carabao raisers are not aware of the various signs of estrus, hence, female carabaos come in heat undetected. This causes delay in breeding especially if there are no bulls around and farmers are completely dependent on technicians for the breeding of the animals.

Incidence of estrus at any one time in carabao is less than 50%. Technicians often have a hard time identifying carabaos in estrus because they are usually

spread over a wide area in the village. Hence, there should be a scheme in estrus detection such that incidence of estrus is immediately relayed by the farmers to the technicians.

The indifferent attitude of program beneficiaries toward the acceptance of the technology. There is a general tendency among beneficiaries to have this "wait and see" attitude before adopting any technology. This behavior is reflective of their fear of ridicule and the need for friendship and social approval. That is why, there is really a need to educate and convince the beneficiaries regarding the economic benefits that they could gain from the technology and also to identify "innovators" or farmer leaders who are willing to take the risk of trying out new and better methods.

Implementers are not provided all the logistic support needed to seriously carry out a Carabao Upgrading Program through artificial insemination process. Not all implementers are provided with the necessary equipments needed to carry out the Program and more often, they do not have enough operating expenses and traveling allowance thus causing a hindrance in the smooth and continued operation and monitoring of the different activities involved in Carabao Upgrading Program through the use of artificial insemination technique.

A joint Philippine - Australian Venture called Zamboanga del Sur Development Project (ZDSDP) which adopted institutionalization, as the strategy to attain development activities in the said province was the subject of the study conducted by Ibay. He concluded that ZDSDP's role in institutionalizing

development techniques, values and attitudes was confronted with problems of financial strategies, fast personnel turnover, insufficient inter-agency coordination, lack of leadership support and weak commitment from higher authorities. **Ibay,** (1984:223-226) further postulated that the solution to these problems determined the success and failure of the project both in its component activities and its institutionalization.

In 1997,a study was conducted taking a closer look at the impact of the extent and quality of the participatory communication on the growth of the cooperator's individual competencies and economic, ecological and social aspects. This study which was conducted by **Alo et al,** determined the path of change taken by Small Ruminants/ Coconut Systems Project (SRCSP), a Philippine Council for Agriculture, Forestry and Natural Resources Research and Development - International Development Research Center (PCARRD-IDRC) Project on sheep and goats, two years after its completion and phase out from Sta. Cruz, Laguna, the extent and the quality of the participatory communication in various activities during Project implementation and the extent to which the Project has made an impact on the farm households and on the barangays. Results showed that SCRSP took a sustainable path of change two years after its phase out from the villages. The study likewise noted that SCRSP involved its beneficiaries in all phases of the Project and that participation was genuinely occurring as cooperation.

Buenafe and Peña, Jr. (1997) conducted a study in Negros Occidental to determine the socio-economic impact of the Carabao dispersal Program involving forty cooperatives. The Program was funded by the Land Bank of the Philippines (LBP) and implemented by the Philippine Carabao Center (PCC) at La Carlota Stock Farm (LCSF) from 1991 to 1995 Results of the study showed that the direct benefits derived by the farmers from the Program include the availability of draft animals for farming activities and the additional income when the animals were loaned out for contract work. Problems encountered include failure of the farmers to pay the loan through the income earned from using the carabao solely as work animal and the poor monitoring and evaluation of the status of the Project.

The studies mentioned were just proof that management and implementation of a development Program is not an easy task and is replete with difficulties. Implementers therefore, should be prepared with contingency plans to adjust to whatever problems and obstacles that may arise while carrying out a Program into completion. Involvement of the beneficiaries in all phases of the Program, genuine cooperation between beneficiaries and implementers and regular monitoring and evaluation, however, are important factors that could contribute to the success of a Program.

Related Studies

Studies, which have bearing on this research, have been cited here, to show that other concepts of assessment of Programs implemented by government and non - government organization have been conducted.

The study of **Laodenio** (2005) assessed the management of the Programs and services of the Community Affairs Office of the Province of Northern Samar on the aspects of barangay affairs, community organizing and community extension and livelihood. The research employed descriptive assessment of research and the basic data - gathering instrument was the questionnaire.

Based on the findings of the study, the following conclusions were derived: 1) the profile of the Community Affairs Office (CAO) management team reveals that this group of government development workers could be productive since they are in the middle age, mostly female, married, educationally qualified, young and equipped with many trainings related to their line of work with very satisfactory performance rating; 2) the significant differences in the perception of the respondents in regards to planning, implementation and monitoring, and evaluation of programs and services under barangay affairs, community organizing and community extension and livelihood are eye openers for the community affairs office to reassess their potential and competencies to be able to perform well; 3) the problems on limited funding, political interference and the decisions of the top management are socio-political issues that have something to do with bureaucracy; 4) while it is clearly provided that the public

management service should be free from political interference, key responsibilities within the system are intensive to politicians.

Laodenio's study is similar to the present work because both deal with assessment of development projects implemented by the government. Their difference however lies in the subject of the study and in the research environment. The study of Laodenio involved government personnel working in the Community Affairs Office and the clientele of said Office and was conducted in Northern Samar while the present study was conducted in Samar Province and involved Program implementers in the local government units of the Agriculture Office as well as the Program beneficiaries of Carabao Upgrading Program.

The main objective of the study of **Fabillar** (2001) was to determine the job performance and the problems of the agricultural technicians on their different functions as perceived by the farmers / clienteles, supervisors and agricultural technologists themselves. Based on the gathered data, he arrived at the conclusion that agricultural technicians in San Jorge, Samar, are capable of improving the lives of the farmers in the Area given the proper attention, logistical support such as trainings, travel facilities and proper orientation. Being a change agent they should be provided the proper atmosphere in the performance of their missionary function. He further concluded that the farmers as the service clientele are receptive to technological change and supportive to the agricultural development program but they need guidance, trainings,

motivation and support from the government. They also need to realize and understand that their efforts are addressed to their own needs and that participatory approach is needed within the situation.

He recommended that Agricultural Development Program should be properly assessed in terms of its focus, directions and approaches. This could be addressed through proper planning, improved program implementation and a built-in monitoring system. The responsibility of building up a better agricultural program lies in the national government, local government units, agricultural technicians and the farmers, as well. He also recommended the institutionalization of participatory planning approach whereby the farmers, as service clientele, are able to participate in term of correct information as input to planning and this could be made through periodic services and planning session where performance is evaluated and assessed followed by planning activity sessions. He further recommended the proper orientation of local government unit officials and executives in order to address the problem of prioritizing programs and projects in agriculture as to its necessity in the locality and the nation as a whole.

Although the research conducted by Fabillar and the present study are both focused on the agriculture sector, they differ also in the sense that the cited study assessed job performance of agricultural technicians while the present work assessed the Carabao Upgrading Program. Nevertheless, both works involved the farmers. On a broader perspective, both are concerned towards

improving the lives of the farmers referred to as the service clientele in the cited study and Program beneficiaries in the current work.

In 2001, **Suarez** conducted a research on Mangrove Reforestation Project in San Jose, Northern Samar. The purpose of the study was to evaluate the impact of the reforestation project on the lives of the coastal communities fronting the islands of Cabacongan, San Jose, Northern Samar, the perception of the respondents on the extent of implementation of the project, the utilization of mangrove resources, the practices and techniques implemented, the problems encountered and the social, economic and environmental benefits derived from the Project. Two groups of respondent were utilized in this study, the coastal residents and the Project implementers with a total of 112 respondents to elicit the needed data, which were gathered through the use of survey questionnaire as instrument in data gathering. The descriptive evaluative method of research was used. Based on the findings of the study, the researcher concluded that the Mangrove Reforestation Project was perceived successful in terms of resources development/rehabilitation, maintenance and protection, and reforestation.

Meanwhile, **Dacoag** (2001) conducted an "Assessment of the Agrarian Reform Communities (ARC) Program in the Province of Samar" and based on the data gathered, he arrived at the following conclusions: 1) the agrarian reform beneficiaries were fully convinced that ARC is beneficial to them in helping them to be self-reliant, self sufficient, and financially well-off; 2) although the Program offers good opportunity, the implementation was very poor and its

accomplishment was very slow; 3) in cost-benefit analysis, the return of investment is very slow; 4)the impact of the program was not concretely seen by both the beneficiaries and line agencies due to lack of strict implementation and monitoring of the different components of the Comprehensive Agrarian Reform Program (CARP) support services by the different line agencies involved; and 5) on the eight areas of components of CARP support services, physical influences and economic support services, agriculture-based industrialization, basic social services, ecosystem development, and gender and population concern, are the areas that need focus or attention in terms of implementation and monitoring.

The two cited studies bear semblance to the present study since the researches dealt on the assessment of Programs implemented by government agencies. However, while the study of Suarez utilized the descriptive evaluative method, which is also the method used in the present work, Dacoag utilized the descriptive normative method to assess the Project implementation. In addition, all works differ in the sense that Suarez focused on Mangrove Reforestation, while Dacoag focused on Agrarian Reform beneficiaries and the present study focused on Carabao Upgrading Program.

An evaluation of the Community Service Program of the De La Salle University – College of Saint Benilde, was conducted by **Sembrano** in 1999 and she arrived at the following conclusions: 1) One of the means to realize the social formation of the students in the College of Saint Benilde was through the Community Service Program. 2) The ratings given by student respondents

implied the need to further strengthen the effort of the implementers in order to realize the objectives of the Program. 3) The student respondents of this study belonged to the middle class of society based on their background as well as the educational and the occupational characteristics of their parents. 4) The sector served by the Community Service Program was concentrated on the children and youth at risk. 5) The Community Service Program had clear - cut guidelines and procedures in the implementation of its Program. However, there is a need to update the procedural stage considering the many problems encountered by the students and the Program beneficiaries. 6) The Community Service advisers fell short of their performance both from the standpoint of the student and representatives of the different centers. 7) The students needed to have more intensive preparatory activities prior to their actual immersion not only in the implementation of the Program but more on the effective dealing with the marginalized sector. They needed to have a deeper understanding of the sector they would be serving and the need to internalize the commitment of actualizing their social responsibility. 8) The activities implemented by the students were mostly short term and repetitive, however, continuity of the program was highly recommended by the direct recipients of the Community Service Program. The Program was also successful in its aim to imbibe the Benildean core values. 9) the Program proved to be beneficial an the centers and most especially to its direct recipients.

Sembrano's study is relevant to the present study because both determined the benefits derived by the beneficiaries from the implementation of the Program but they differ in the sense that the cited study involved students in the Program implementation while the present study involved farmers and technical personnel of the local government units in its implementation.

Milca (1998) focused his research on the Assessment of Fishery Laws Enforcement Program and based on the findings of the study, he concluded that 1) The overall assessment on the extent of implementation of the Program components as perceived by the four groups of respondent is "least implemented". The Fishery Law Enforcement Program has not delivered successfully its full force of implementation to the community as indicated by its minimal result; 2) the effect/ result of Fishery Law Enforcement Program was rated "least effective" by the four groups of respondent. It implies that the Program has a "low impact or minimal effect". There are still occurrences of illegal fishing activities, community awareness was not enhanced, and there was no tangible result on resource conservation, regeneration and sustainability of fishery aquatic resources; 3) the coastal communities have not understood well the intricacies of the Fishery Law Enforcement Program itself, but rather demand for assistance thinking that it would be the best solution to their present poverty condition; and 4) for any program to be sustainable, there will be reports to vouch its programs. Based on the foregoing findings, Milca recommended that the Fishery Law Enforcement Program be disseminated intensely through print

and oral, provide re-orientation seminar and coordinate with local government units so that coastal communities will be equipped with full knowledge and information on the Program.

The study of Milca is closely related to the present study because both focused on program assessment although they differ on the research environment. Milca's study was conducted on Northeast Samar and involved the fishery sector along the coastal communities while the present study was conducted in Samar Province and involved the farming sector. However, it is worth mentioning also, that both government programs were implemented by the same agency, which is the Department of Agriculture.

The descriptive-evaluative research method using the questionnaire as the main data collection tool was employed in the study of **Cosinero,** (1997) which focused on the Assessment of the School Community Outreach and Livelihood Projects of Isabel and Merida District. The study revealed the following findings: 1) The objective of the Project was to provide alternative means of livelihood and to make wise use of leisure time, 2) The focus of the Livelihood Project was on communal and individual vegetable gardening, raising of ornamental plant and goat raising, 3) The strategies used in Project implementation were community organizing, choosing good community leaders and setting up of cooperatives, 4) The management of the Project was a joint effort of the school officials and the community leaders. Different working committees were organized and policies,

rules and regulations were established with regular and periodic evaluation to determine success and failure of the Project.

The study of **Sanchez,** (1997) aimed to look into the Status and Prospects of the Community Outreach Programs of Palompon District. The descriptive-evaluative method using the questionnaire as the main data collection tool was employed. Results of the study showed that the Program had specific targets to consider but funding was limited. School participation was also on a limited scope and activities were limited to vegetable gardening, raising of poultry and swine, and tilapia culture. There were varied reactions from the respondents but majority gave a positive and favorable reaction. Proper logistics and weak leadership were among the problems identified in the Project implementation.

The cited studies were similar to the present study in the sense that they all utilized the descriptive - evaluative method of research using the questionnaire as the main data collection tool. The studies cited however, focused on the Community Outreach Programs implemented by Secondary Schools of the Department of Education with the out-of-school youth as beneficiaries while the present study focused on the Carabao Upgrading Program implemented by the Department of Agriculture Office of the Local Government Units with the farmers as beneficiaries.

The study of **Cayat** (1997) sought answers to problems such as the extent of implementation of the Community Development Programs as perceived by the teachers and local officials, the effectiveness of the implementation of the

Community Development Programs and Projects, the benefits derived from the projects implemented, the problems encountered in the implementation and the measures needed to improve the effectiveness of the implementation. It utilized the descriptive evaluative method of research and data were gathered through the questionnaire and interview with respondents. Specifically, it aimed to assess the status of the Community Development Programs and Projects of the Municipality of Bokod, Benguet, as basis for recommending further improvements of the community.

The major findings of the study were as follows: 1) the Community Development Programs and Projects were "fairly implemented" as perceived by the respondents; 2) there was no significant difference between the perceptions of the teachers and the local officials on the extent of implementation of the said programs and projects; 3) the programs and projects were "very effective" and there was no significant difference in the perceptions of the two groups of respondent; 4) the community derived much benefit from the programs and projects; 5) the program implementers encountered very serious problems in their implementation as perceived by the teachers and local officials and that no significant difference existed between the perception of the two groups of respondent; and 6) measures to improve the implementation of said Programs and Projects were very much needed.

The study of Cayat is very similar to the present study with regards to its aim, which is program assessment in order to serve as inputs for program

enhancement. Furthermore, both studies sought answers to problems such as extent and effectiveness of program implementation and problems encountered. However, they differ on the research environment and the types of respondent because while the study of Cayat was located in Benguet and the respondents were teachers and local officials, the present study was conducted in Samar Province and the respondents were composed of farmers referred to as program beneficiaries and technical personnel from the local government units referred to as program implementers.

Shrestha's (1997) study focused on the identification of the role of the grassroots organization in poverty alleviation in the Province of Guimaras. The review of the grassroots organization and institutional support of the government indicated that it was not clearly established in the local planning process. The grassroots organization has not received adequate support, linkages and meaningful interventions from the delivery system nor had they been involved in the development process, which were the necessary conditions to enhance their capability towards the establishment of a well articulated receiving mechanisms at the local level. Lack of identification of the target group resulted in the exclusion of the very poor from the sharing of benefits. The banking credit was inaccessible or less accessible to the poor forcing them to rely heavily on local moneylenders when the need arises. Very high interest on such credit exploited the poor thus, worsening their predicament.

Furthermore, this study found out that the implementation of the Social Reform Agenda (SRA) Programs followed the bureaucratic process resulting in a strict top to bottom planning and implementation and that SRA hardly had any impact on the poor. Besides, there was lack of collaborative efforts among government, non-government and grassroots organization. There was also a tendency to maintain minimal contact with each other and such a tendency created gap in continuous information flow between them. In addition, the capability of grassroots organization to perform institutional functions such as planning, resource mobilization, implementation, monitoring and evaluation (PRICE) was weak. Thus, there was a need to build the capability of the grassroots organization and establish indigenous receiving mechanisms for their meaningful participation.

The research undertaken by Shrestha bears semblance to this study because both delved into the implementation and evaluation of a development program although they differ on focus. The focus of the earlier mentioned study was on the identification of the role of grassroots organization in poverty alleviation while the present study deals on the extent of effectiveness of the Carabao Upgrading Program on poverty alleviation.

The study of **Bacurio** (1996) on the Enterpreneurial Status of the Department of Agrarian Reform (DAR) Assisted Cooperatives in Samar was able to derive the following conclusions: 1) DAR assisted cooperatives are capable of managing their own affairs given the proper technical know-how and assistance.

This includes giving them the proper motivation and opportunity to understand their economic situation; 2) they could be a proper avenue for the government to showcase its plans and programs. The same could be the proper avenue for unification and launching of government and non-government organization plans and programs as well as a source of information for its monitoring being a vital factor for rural development; 3) there is a need for improving the implementation of the different program activities of entrepreneurship in Province of Samar; and 4) the cooperative members and officers are passive in dealing with cooperative activities. Furthermore, the respondents considered the enhancement of the different program activities of cooperative entrepreneurship and the extent of implementation of the said program activities as "moderate", the problems encountered relative to the program implementation as "less grave" while they presented as problem on the monopoly of decisions due to influence of some members a well as political intervention.

In the words of Bacurio, much should be done in "value reorientation" in handling government programs and project as well as inculcating "social responsibility" to individuals, that the purpose of the cooperative endeavor is not only limited to personal gain but a more noble motive, which is the improvement of the quality of life of people in the rural areas.

The study of Bacurio is related to the present study because they both deal with the assessment of government Programs. One of their differences however is that, the cited study focused on entrepreneurial status of DAR-

Assisted Cooperatives while the present study focused on the Carabao Upgrading Program.

It is obvious from the studies cited that various Development Programs aimed towards poverty alleviation have been assessed and found to be successfully implemented but success was short lived due to obstacles such as limited funding, political intervention, lack of cooperation among government and non-government organizations, and lackluster commitment on the part of implementers which served as deterrent to the continued and longer Program implementation. Nevertheless, the foregoing studies guided the researcher in developing the concept and in giving essence to the present study.

Chapter 3

METHODOLOGY

This chapter deals with the methods and procedures used to answer the problems posted in the study. It presents the research design, the instruments used in gathering data, the validation of the instrument, the sampling procedure and data gathering procedure, and the statistical treatment applied and utilized in the analysis of data.

Research Design

This study utilized the descriptive – evaluative research method using the survey questionnaire as the main instrument in gathering the needed data. The instrument was administered to two groups of respondent in the five municipalities of Samar: Basey, Sta. Rita, Villareal, Pinabacdao and Calbiga, which were the pilot areas of the Carabao Upgrading Program in the Samar Province. The respondents were the Program beneficiaries and the Program implementers. The first group of respondents was composed of Program beneficiaries from the aforementioned municipalities whose sample size was determined using the stratified random sampling method. The second group of respondents, which were composed of program implementers, involved all technologists in the Municipal Agriculture Office of the local government units of the five previously mentioned municipalities. Total enumeration was utilized to determine the sample size of this second group of respondents.

The mean, standard deviation and t-test for independent samples were the statistical tools utilized in the processing and analysis of gathered data.

Instrumentation

As mentioned earlier, the main tool employed in data collection in this study was the survey questionnaire. Unstructured interview was also utilized to verify, crosscheck and augment the data obtained. Two sets of questionnaires were prepared, since there were two groups of respondent for this study. Set 1 was written in vernacular and intended for Program beneficiaries while set 2 was written in English and intended for Program implementers.

The questionnaire was a combination of checklist questions were the respondents checked the appropriate answers using the numerically coded rating and/or fill-in their answers respectively. The questionnaire was divided into five major parts.

Part I looked into the personal data or profile of the respondents. Part II determined the extent of implementation of the Carabao Upgrading Program in terms of the four major components which were l) estrus synchronization; 2) artificial insemination; 3) pregnancy diagnosis; and 4) defluking. The rating scale used in this part was the five-point Likert pattern with the following interpretations: 5 – fully implemented; 4 – highly implemented; 3 – moderately implemented; 2 – poorly implemented; and 1 – not implemented at all.

Part III of the questionnaire looked into the extent of implementation of the Carabao Upgrading Program relative to the concerns of poverty alleviation, nutritional improvement, income equity and distribution, and people empowerment. The five- point Likert pattern was also utilized with the following interpretations: 5 – extremely effective; 4 – highly effective; 3 – moderately effective; 2 – slightly effective; and 1 – not effective at all.

Part IV looked into the problems encountered in the Program implementation and likewise the five-point Likert scale was employed having the following interpretations: 5 – extremely felt; 4 – highly felt; 3 – moderately felt; 2 – slightly felt; and 1 – not felt at all.

Part V listed down the suggested solutions to the respondent's problems and they were made to assess the solutions through the five-point Likert scale with the following interpretations: 5 – strongly agree; 4 – agree; 3 – moderately agree; 2 – disagree; and 1 – strongly disagree.

Validation of the Instrument

The questionnaire, which was the main tool employed in data collection was developed by the researcher and submitted to the thesis adviser for criticism, correction and suggestions for improvement. Then, the improved version of the questionnaire was administered for dry run or pilot testing to Program beneficiaries in Barangay New Mahayag, Catbalogan, Samar, to determine its functionality, clarity of item and instructions and to further check

for flaws. The result of the dry run was analyzed and served as basis for improvement and modification of the questionnaire, then, the final form was administered to the target group of Program beneficiaries. The dry run or pilot testing was undertaken twice to the same group of Program beneficiaries in Barangay New Mahayag with a time intervention of two weeks. This test-retest method (Calmorin, 1994:66-67) was done in order to determine and establish the reliability of the instrument.

On the other hand, the questionnaire intended for Program implementers was administered to technologists in the Municipal Agriculture Office of the Local Government Unit of Catbalogan who were also Program implementers of the Carabao Upgrading Program but are not the target respondents. The test-retest method was likewise utilized with the same time intervention of two weeks in order to determine and establish the reliability of the instrument.

The statistical tool applied in determining the reliability of the instrument through the test-retest method was the Pearson Product Moment Correlation Coefficient or Pearson r. For the Program beneficiaries the Pearson r obtained was 0.8048 and for the Program implementers the Pearson r obtained was 0.82, both are interpreted that there is high positive correlation between the first and second try out. This result indicated that the responses in the try out were more or less the same or consistent.

Sampling Procedure

As previously mentioned, there were two groups of respondent in this study. For the first group of respondents, the sampling size was determined using the stratified random sampling method. The total number of Program beneficiaries from June 1997 to June 2004, which was the period covered in this study, was obtained through the records on reports submitted to the Philippine Carabao Center (PCC) at Leyte State University (LSU). From the 793 total number of Program beneficiaries coming from the pilot Municipalities 267 respondents were computed to be the sample size, broken down into the five municipalities as follows: Basey – 61; Sta. Rita – 68; Calbiga – 63; Pinabacdao – 51; and Villareal – 24. After the desired sample size was determined, the selection of the actual respondents was made through the fish bowl technique. The names and addresses of the Program beneficiaries were encoded, printed, rolled and placed on a box. Then the respondents were drawn until the sample size was completed. For each draw the name and address of the respondent was recorded by the researcher then the paper was rolled again and replaced in the box. Replacement of the drawn name was done all through out the lottery to ensure that all the members coming from the target population have the same chances of being selected as respondent in the study, hence normal distribution of the data was generated.

Data Gathering Procedure

The researcher prepared a letter addressed to the local chief executives of the municipalities where the study was conducted requesting permission to conduct the study and distribute the questionnaire. Furthermore, in order to be assured of personal safety during the survey, a verbal request from the military particularly the 801 Brigade based at Barangay Bagacay, Hinabangan, Samar, asking for clearance and stating the reason of the survey was sought out. The military acceded to the request giving the researcher a two - month survey period and also informed the other military units in the different barangays of the five municipalities regarding the presence of the researcher.

The researcher distributed the questionnaire personally to the respondents in order to also undertake observations and unstructured interviews, if necessary, and waited until the respondents finished answering the questionnaire to ensure one hundred percent retrieval. Whenever doubts crossed relative to the answers given in the questionnaire, the researcher interviewed the concerned respondent to verify and ascertain the veracity of responses gathered. For those respondents who could not readily answer the question or because the respondent was not available at the time of the visit and distribution of questionnaire, the questionnaire was left to the care of the barangay captain for Program beneficiaries and with the officemate at the Municipal Agriculture Office of the local government units of Basey, Sta. Rita,

Villareal, Pinabacdao and Calbiga for Program implementers and were retrieved later.

The distribution and retrieval of the questionnaires was conducted from February to March 2006 with a hundred percent (100%) retrieval.

Statistical Treatment of Data

The data gathered through the instruments discussed under instrumentation were tallied, organized and presented in tabular forms through the assistance of the College of Graduate Studies – Assistance for Research Center (CGS-ARC). The different statistical tools utilized in analyzing the data were the weighted mean, the standard deviation and the t-test for independent samples.

Pearson Product – Moment Correlation Coefficient (Pearson r). As previously mentioned, the statistical tool employed in determining the reliability of the instrument through the test-retest technique was the Pearson Product-Moment Correlation Coefficient with the following formula (Cardoso, Module 6,2000:1)

$$r_{xy} = \frac{N \Sigma XY - (\Sigma X)(\Sigma Y)}{\sqrt{[N \Sigma X^2 - (\Sigma X)^2][N \Sigma Y^2 - (\Sigma Y)^2]}}$$

Where:

r_{xy} = refers to the correlation coefficient between 1st and 2nd try out.

ΣX = refers to the total of responses in the 1st try out.

ΣX^2 = refers to the total of the squared responses in the 1st try out.

ΣY = refers to the total of responses in the 2nd try out.

ΣY^2 = refers to the total of squared responses in the 2nd try out.

In the interpretation of the obtained values for correlation coefficient, the table suggested by Calmorin (1994:256) as mentioned by Cardoso (Module 6, 2000:1) was used as reflected below.

Value	Interpretation
0.00 to ± 0.20	Negligible correlation
±0.21 to ±0.40	Low or slight correlation
±0.41 to ± 0.70	Marked / moderate correlation
±0.71 to ± 0.90	High correlation
±0.91 to ± 0.99	Very High correlation
±1.0	Perfect correlation

t-test for independent samples. This special type of t-test was used in this study because the two groups of respondent were independent of each other. The formula for computing the t-value is by Walpole (1982:311) as mentioned by Cardoso (Module 9, 2000:3).

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{(n_1 - 1)S_1^2 + (n_2 - 1)S_2^2}{n_1 + n_2 - 2}\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}} \qquad df = n_1 + n_{2-2}$$

Where:

t = refers to the computed t value.

X_1 = refers to the mean of the 1st group.

X_2 = refers to the mean of the 2nd group.

S_1^2 = refers to the sample variance of the 1st group.

S_2^2 = refers to the sample variance of the 2nd group.

n_1 = refers to the number of respondent for the 1st group.

n_2 = refers to the number of respondents for the 2nd group.

$$S_1^2 = \frac{n_1 \sum X_1^2 - (\sum X_1)^2}{n_1 (n_1 - 1)}$$

$$S_2^2 = \frac{n_2 \sum X^2 - (\sum X_2)^2}{n_2 (n_2 - 1)}$$

Chapter 4

PRESENTATION, ANALYSIS AND INTERPRETATION OF DATA

This chapter describes, analyzes and interprets the data gathered as well as the results of the analysis. This includes the profile of the Program beneficiaries and implementers, the extent of the implementation of the CUP on the four Program components, the extent of effectiveness of the CUP on the four Program concerns, the problems encountered, the solutions and/or suggestions of the respondents.

Profile of the Program Beneficiaries

This section discusses the profile of the Program beneficiaries in terms of age and sex, civil status, average family income per month, family size, educational attainment and the number of carabaos owned.

Age and sex. Table 1 presents the age and sex distribution of the Program beneficiaries. From the Table, it can be deduced that their age distribution is from the age interval of 21-25 to 81-85 years old, although majority of the respondents were between the ages 41-45 to 61-65 years old. Among the respondents, 45 or 16.42percent fall between the ages 56-60 years old, followed by those who were at the age of 46-50years old, which comprised 42 or 15.33percent and those within the 51-55 years old with a total of 41 or 14.96 percent.

Those within the ages 41-45 years old comprised 31 or 11.31percent while 29 or 10.50percent comprised those within the age bracket of 61-65 years old. The average age for the male Program beneficiaries was 51.12 years with a standard deviation of 11.62 years while the female Program beneficiaries have an average age of 51.34 years old with a standard deviation of 12.21 years. The combined mean is 51.16 years with a standard deviation of 11.72 years. Furthermore, majority of the Program beneficiaries were male composed of 221 or 80.66percent and the remaining 53 or 19.34percent were female.

Table 1

Age and Sex Distribution of the Program Beneficiaries

Age (in years)	Sex				Total	Percent
	Male		Female			
	f	Percent	f	Percent		
81-85	1	0.45	0	0.00	1	0.36
76-80	2	0.90	0	0.00	2	0.73
71-75	5	2.26	3	5.66	8	2.92
66-70	16	7.24	2	3.77	18	6.57
61-65	22	9.95	7	13.21	29	10.58
56-60	36	16.29	9	16.98	45	16.42
51-55	32	14.48	9	16.98	41	14.96
46-50	34	15.38	8	15.09	42	15.33
41-45	24	10.86	7	13.21	31	11.31
36-40	18	8.14	1	1.89	19	6.93
31-35	17	7.69	2	3.77	19	6.93
26-30	6	2.71	5	9.43	11	4.01
21-25	2	0.90	0	0.00	2	0.73
Not specified	6	2.71	0	0.00	6	2.19
Total	221	100.00	53	100.00	274	100.00
Percentage	80.66	-	19.34	-	100.00	-
Mean	51.12 yrs	-	51.34 yrs	-	51.16 yrs	-
SD	11.62 yrs	-	12.21 yrs	-	11.72 yrs	-

Civil status. The distribution of respondents as to civil status is reflected in Table 2, which clearly shows that majority of the respondents were married comprising 242 or 88.32percent while 11 or 4.01percent were widow/widower. The remaining six or 2.19percent were single.

Table 2

Profile of the Program Beneficiaries in Terms of Civil Status

Civil Status	F	Percent
Single	6	2.19
Married	242	88.32
Widow / er	11	4.01
Separated	4	1.46
Total	263	95.99

Average family income per month. Table 3 shows the profile of the Program beneficiaries in terms of average family income per month. As shown by this Table, majority of the Program beneficiaries earned an average family income of PHP 2,000.00 - 3,499.00, which comprised 88 or 32.12percent out of 274 respondents. There were 82 0r 29.93percent who earned PHP 500.00 - 1,999.00 and 41 or 14.96percent earned an average family income between PHP 5,000.00 - 6,499.00. Meanwhile, 34 or 12.41percent earned between PHP 3,000.00 - 4,999.00, seven or 2.55percent earned an average family income of PHP 6,500.00 - 7,999.00 and another seven or 2.55percent earned between PHP 9,500.00 - 10,999.00. Only one or .36percent have an average family income of PHP 15,500.00 - 16,999.00 and three or 1.09percent has an average family income below PHP 500.00.

However, there were four respondents or 1.46percent who did not specify their average family income. The mean family income of the Program beneficiaries is PHP 3,236.52 with a standard deviation of PHP 2,363.72.

Table 3

Profile of the Program Beneficiaries in Terms of Average Family Income per Month

Income (in PHP)	f	Percent
15,500.00-16,999.00	1	0.36
14,000.00-15,499.00	0	0.00
12,500.00-13,999.00	0	0.00
11,000.00-12,499.00	2	0.73
9,500.00-10,999.00	7	2.55
8,000.00- 9,499.00	5	1.82
6,500.00- 7,999.00	7	2.55
5,000.00- 6,499.00	41	14.96
3,500.00- 4,999.00	34	12.41
2,000.00- 3,499.00	88	32.12
500.00- 1,999.00	82	29.93
below 500.00	3	1.09
Not Specified	4	1.46
Total	274	100.00
Mean	PHP 3,236.52	-
SD	PHP 2,363.00	-

This data denote that the Program beneficiaries earn meager income which was obviously lower than the poverty threshold level for Region VIII which was 10,783.00 pesos for the year 2000 (http//www.census.gov.ph/data/sector data/2000/ie00p01f.htm). Probably because of this measly income, most of the Program beneficiaries can hardly

make both ends meet thus they resort to borrowing money from private lending individuals or usurers.

Family size. The profile of the Program beneficiaries in terms of family size also included relatives living within the same household. The concept of the extended family was given consideration because it is a very common occurrence in rural farming families where most of the program beneficiaries are located.

Table 4

Profile of the Program Beneficiaries in Terms of Family Size

Family Size	F	Percent
19	1	0.36
18	1	0.36
17	3	1.09
16	5	1.82
15	1	0.36
14	10	3.65
13	15	5.47
12	16	5.84
11	19	6.93
10	42	15.33
9	38	13.87
8	44	16.06
7	32	11.68
6	19	6.93
5	8	2.92
4	12	4.38
3	6	2.19
2	1	0.36
Not specified	1	0.36
Total	274	100.00
Mean	9 members	-
SD	3 members	-

Table 4 shows that the family size of the Program beneficiaries ranges from those having only two members to those having 19 members comprising one or 0.36percent each. A total of 44 or 16.06percent out of 274 respondents have a family size of eight while 42 or 15.33percent have ten members and 38 or 13.87percent have nine members. The average family size of the Program beneficiaries as reflected in Table 4 is composed of nine members with a standard deviation of three members.

Educational attainment. Table 5 shows the educational background of the Program beneficiaries. It can be gleaned from the Table that majority of the Program beneficiaries were elementary level with a total of 149 or 54.35percent followed by those who were elementary graduate with 49 or 17.88percent. A total of 40 or 14.60percent were high school graduate and 14 or 5.11percent were high school level. There were nine or 3.28percent college level while seven or 2.55percent did not specify their educational attainment. Of the remaining six respondents, five or 1.82percent have no formal schooling and only one or 0.36percent is a college graduate.

The data denote that majority of the Program beneficiaries have inadequate education which was probably one of the reason for their low income.

Table 5

Profile of the Program Beneficiaries in Terms of Educational Attainment

Educational Attainment	F	Percent
College Graduate	1	0.36
College Level	9	3.28
High School Graduate	40	14.60
High School Level	14	5.11
Elementary Graduate	49	17.88
Elementary Level	149	54.38
No Schooling	5	1.82
Not Specified	7	2.55
Total	274	100.00

Number of Carabaos Owned. Shown in Table 6 is the data on the number of carabaos owned by the Program beneficiaries. As gleaned from the Table, majority of the respondents owned one carabao comprising 98 or 35.77percent while 74 or 27.01percent have two carabaos and 63 or 22.99percent owned three carabaos. There were 28 or 10.22percent respondents with four carabaos and seven or 2.55percent have five carabaos. Only one or 0.36percent owned seven carabaos and another one or 0.36percent have no carabao.

The average number of carabao owned by Program beneficiaries, were two carabaos with a standard deviation of one carabao. The data denote that almost all of the Program beneficiaries have possession of a carabao, which only proves that they consider the carabao as an important partner in their farming activity.

Table 6

Profile of the Program Beneficiaries in Terms of Number of Carabaos Owned

Number of Carabaos Owned	F	Percent
7	1	0.36
6	2	0.73
5	7	2.55
4	28	10.22
3	63	22.99
2	74	27.01
1	98	35.77
None	1	0.36
Total	274	100.00
Mean	2 carabaos	-
SD	1 carabao	-

Profile of the Program Implementers

This section discusses the profile of the Program implementers in terms of age and sex, civil status, average family income per month, family size, educational attainment and the number of years of involvement in the Carabao Upgrading Program (CUP). Tables 7-12 present these data.

Age and sex. As shown in Table 7, the age and sex distribution of the Program implementers were from 23 –55 years old, wherein 3 or 18.75percent out of 16 respondents were 42 years old. The oldest among the respondents is 55 years old with two or 12.50percentand the youngest among the Program implementers is 23 years old with one or 6.25percent. The average age of the male Program implementers is 39.50 years with a standard deviation of 10.27

years while, for the female Program implementers, the average age is 51 years old with a standard deviation of 4.77 years. Their combined mean of 43.81 years showed a standard deviation of 10.19 years. Furthermore, majority of the Program implementers were male composed of ten or 62.50percent and six or 37.50percent were female.

The data implied that the typical Program implementers are in their mid 40s and at the prime of life. Furthermore, the male were younger than the female and comprises the majority of the Program implementers. This is expected considering that working in agriculture related work is considered a blue-collar job and had long been a male dominated field.

Table 7

Age and Sex Distribution of the Program Implementers

Age (in years)	Sex				Total	Percent
	Male		Female			
	f	Percent	f	Percent		
55	0	0.00	2	33.33	2	12.50
52	1	10.00	1	16.67	2	12.50
51	0	0.00	2	33.33	2	12.50
50	1	10.00	0	0.00	1	6.25
47	2	20.00	0	0.00	2	12.50
42	2	20.00	1	16.67	3	18.75
36	1	10.00	0	0.00	1	6.25
30	1	10.00	0	0.00	1	6.25
26	1	10.00	0	0.00	1	6.25
23	1	10.00	0	0.00	1	6.25
Total	10	100.00	6	100.00	16	100.00
Percentage	62.50	-	37.50	-	100.00	-
Mean	39.50yrs		51.00yrs	-	43.81yrs	-
SD	10.27yrs	-	4.77 yrs	-	10.19yrs	-

Civil status. The distribution of the respondents as to civil status is reflected in Table 8. It can be gleaned from the Table that 12 or 75percent of the Program implementers were married, two or 12.50percent were single and one or 6.25percent is widow/widower. Another one or 6.25percent did not specify his civil status.

Table 8

Profile of the Program Implementers in Terms of Civil Status

Civil Status	f	Percent
Single	2	12.50
Married	12	75.00
Widow/er	1	6.25
Not Specified	1	6.25
Total	16	100.00

Average family income. The profile of the Program implementers in terms of average family income per month is shown in Table 9. It can be gleaned that the average family income varies from PHP 5,000 with one or 6.25percent to PHP 25,625.00 with one or 6.25percent also out of 16 respondents. There were four or 25percentwho did not specify their average family income while three or 18.75percent have an income of 8,000.00.

The data denote that the average family income for Program implementers is PHP 10,838.75 with a standard deviation of PHP 5,908.91. This implied that the income of Program implementers was jut enough to meet the

basic necessities in life as indicated by the poverty threshold of PHP 10,783.00 for Region VIII for the year 2000 (http//www.census.gov.ph./data/sector data/2000/ie00p01f.htm).

Table 9

Profile of the Program Implementers in Terms of Average Family Income per Month

Income (in PHP)	f	Percent
25,625.00	1	6.25
20,000.00	1	6.25
11,398.00	1	6.25
10,000.00	1	6.25
9,000.00	1	6.25
8,700.00	1	6.25
8,300.00	1	6.25
8,042.00	1	6.25
8,000.00	3	18.75
5,000.00	1	6.25
Not Specified	4	25.00
Total	16	100.00
Mean	PHP 10,838.75	-
SD	PHP 5,908.91	-

Family size. As reflected in Table 10, three or 18.75percent of the 16 respondents have a family size of six and another three or 18.75percent were composed of eight members. It can be gleaned also from the same Table that the highest family size among the Program implementers is composed of 12 members with one or 6.25percent and the lowest number is composed of three members also having one or 6.25percent. The average family size however, was

computed with a mean of five members and a standard deviation of three members.

Table 10

Profile of the Program Implementers in Terms of Family Size

Family size	f	Percent
12	1	6.25
11	1	6.25
10	1	6.25
9	2	12.50
8	3	18.75
7	1	6.25
6	3	18.75
5	1	6.25
4	1	6.25
3	2	12.50
Total	16	100.00
Mean	5 members	-
SD	3 members	-

Educational attainment. Table 11 revealed the educational background of the Program implementers. As shown, majority of the Program implementers were college graduate with a total of 13 or 81.25percent out of 16 respondents and the remaining three or 18.75percent are MA/MS graduate. This signifies that the Program implementers are competent enough and possess the necessary educational qualification to carry out the Carabao Upgrading Program (CUP) into attaining its objectives.

Table 11

Profile of the Program Implementers in Terms of Educational Attainment

Educational Attainment	f	Percent
MA / MS Graduate	3	18.75
College Graduate	13	81.25
Total	16	100.00

Number of years of involvement in CUP. As reflected in Table 12, a total of four or 25percent of the Program implementers have been involved in CUP for eight years, while three have been involved for five years and another three has been involved for three years. One respondent or 6.25percent have been involved in CUP for a minimum of 0.75 years. As a whole, the average years of involvement in CUP of Program implementers is 4.50 years with a standard deviation of 2.54 years.

The data implied that the Program implementers have been involved in the CUP for a long period of time and this can be interpreted that they have the dedication and perseverance to stay in the program for such a length of time. Furthermore, they must have gained extensive experience in Program implementation from their prolonged Program exposure.

Table 12

Profile of the Program Implementers in Terms of Number of years of Involvement in CUP

Number of Years	f	Percent
8	4	25.00
7	1	6.25
6	1	6.25
5	3	18.75
4	1	6.25
3	3	18.75
2	1	6.25
1	1	6.25
0.75	1	6.25
Total	16	100.00
Mean	4.50 years	-
SD	2.54 years	-

Extent of Implementation of the CUP.

This part appraises the extent of implementation of the Carabao Upgrading Program (CUP), as perceived by the Program beneficiaries and the implementers in terms of the following Program components: 1) estrus synchronization (ES); 2) artificial insemination (AI); 3) pregnancy diagnosis (PD); and 4) defluking.

Estrus synchronization. Table 13 clearly shows the extent of implementation of the CUP along estrus synchronization as perceived by the two groups of respondent.

Table 13

Comparison of the Responses of the Program Beneficiaries and Implementers on the Extent of Implementation of the CUP

Components/ Indicators	Respondent's Category				Combined Mean	
	Beneficiaries		Implementers			
Estrus synchronization						
1. External signs of estrus or heat is determined.	3.76	HI	3.67	HI	3.72	HI
2. Stage of estrus or heat of animal is evaluated thru mucus discharge.	3.75	HI	3.33	MI	3.54	HI
3. Single injection of hormone to induce heat.	3.39	MI	3.07	MI	3.23	MI
Artifical insemination						
1.Artificial insemination is done when heat is observed.	3.58	HI	3.63	HI	3.61	HI
2. Artificial insemination is done after estrus synchronization.	3.37	MI	3.36	MI	3.37	MI
Pregnancy diagnosis						
1. Careful evaluation of animal's body condition.	3.74	HI	3.44	MI	3.59	HI
2. Evaluation of size and develop ment of mammary glands.	3.57	HI	3.53	HI	3.55	HI
3. Rectal palpation to determine pregnancy.	3.64	HI	3.50	MI	3.57	HI
Defluking						
1. Defluking before breeding.	3.75	HI	3.69	HI	3.72	HI
2. Defluking prior to calving.	3.55	HI	3.67	HI	3.61	HI
3. Defluking after calving.	3.55	HI	3.67	HI	3.61	HI
Total	39.65	-	38.56	-	39.105	-

LEGEND:

4.51 - 5.00 Fully Implemented (FI)
3.51 - 4.50 Highly Implemented (HI)
2.51 - 3.50 Moderately Implemented (MI)
1.51 - 2.50 Poorly Implemented (PI)
1.00 - 1.50 Not Implemented (NI)

As perceived by the Program beneficiaries, the indicators "external signs of estrus or heat is determined" and "stage of estrus or heat of animal is evaluated through mucus discharge" were considered highly implemented as proven by the obtained mean of 3.76 and 3.75 respectively. The indicator "single injection of hormone to induce heat" obtained a mean of 3.39, which is interpreted as moderately implemented. As a whole, the Program beneficiaries considered the extent of implementation of the CUP on the Program component estrus synchronization as highly implemented as demonstrated by the grand mean of 3.63.

On the other hand, the implementers perceived the indicator "external signs of estrus or heat is determined" as highly implemented having obtained a mean of 3.67 while the indicators "stage of estrus or heat is determined through mucus discharge" and "single injection of hormone to induce heat" interpreted as moderately implemented having obtained mean of 3.33 and 3.07 respectively. In general, the Program implementers considered the extent of implementation of the CUP on the Program component estrus synchronization as moderately implemented as evidenced by the grand mean 3.36.

Artificial insemination. The extent of implementation of artificial insemination as perceived by the two groups of respondent is reflected in Table 13. As shown, the highest mean obtained from the Program beneficiaries is 3.58 interpreted as highly implemented for the indicator "artificial insemination is done when heat is observed" while the indicator "artificial insemination is done

after estrus synchronization" got a mean of 3.37 interpreted as moderately implemented. As a whole, the Program beneficiaries considered the extent of implementation of the CUP on the Program component on artificial insemination moderately implemented getting a grand mean of 3.48.

With regards to the perception of the implementers, the same Table show that the indicator "artificial insemination is done when heat is observed" obtained a mean of 3.63 with the interpretation as highly implemented while the indicator "artificial insemination is done after estrus synchronization" got 3.36 interpreted as moderately implemented. Generally, the responses from the Program implementers implied that their perception of the extent of implementation on the component artificial insemination is moderately implemented. This can be discerned through the obtained grand mean of 3.49.

Pregnancy diagnosis. The perception of the two groups of respondent on the extent of implementation of the CUP on pregnancy diagnosis can also be gleaned in Table 13. Shown on the Table is the perception of the Program beneficiaries for this particular Program component. The indicators "careful evaluation of animal's body condition", "evaluation of size and development of mammary gland" and "rectal palpation to determine pregnancy" obtained a mean of 3.74, 3.57, and 3.64 respectively all interpreted as highly implemented with a grand mean of 3.65 also interpreted as highly implemented.

On the other hand, the same Table reflects that the Program implementers rated the indicator "evaluation of size and development of mammary glands"

with a mean of 3.53 interpreted as highly implemented while the indicator "careful evaluation of animal's body condition" and "rectal palpation to determine pregnancy" obtained a mean of 3.44 and 3.50, respectively, both interpreted as moderately implemented. The grand mean of 3.49 is interpreted as moderately implemented revealing the general perception of this group of respondents.

Defluking. Table 13 shows the responses of the two groups of respondent on the extent of implementation of CUP along the Program component on defluking. The perception of the Program beneficiaries show that the indicators "defluking before breeding", "defluking prior to calving" and "defluking after calving" obtained a weighted mean of 3.75, 3.55 and 3.55 respectively, all of which are given the interpretation of highly implemented. The grand mean of 3.62 is proof that defluking is perceived highly implemented by Program beneficiaries.

The same Table also reflects the perception of the implementers on the extent of implementation of the CUP along the Program component defluking. As shown, the indicators "defluking before breeding" obtained a mean of 3.69 while the indicators "defluking prior to calving" and "defluking after calving" both got a mean of 3.67. As a whole, the weighted mean is 3.67 implying that defluking is perceived as highly implemented.

Comparison of the Perception of the Program Beneficiaries and Program Implementers on the Extent of Implementationof the Carabao Upgrading Program (CUP).

The two groups of respondent involved in the study gave their independent assessment and evaluation on the extent of implementation of the Carabao Upgrading Program (CUP) along its four Program components on estrus synchronization, artificial insemination, pregnancy diagnosis and defluking. The perception of the Program beneficiaries and implementers were thus compared and presented in Tables 13 and 14.

Estrus synchronization. Table 13 shows that on the Program component estrus synchronization (ES) the indicator "external signs of estrus or heat is observed" was rated highly implemented by both groups of respondent with a mean of 3.76 from Program beneficiaries and 3.67 from the implementers. The combined mean obtained is 3.72 interpreted as highly implemented. For the indicator "stage of estrus or heat of animal is evaluated through mucus discharge", a mean of 3.75 was obtained from Program beneficiaries with an interpretation of highly implemented and a mean of 3.33 was obtained from the implementers interpreted as moderately implemented. Their combined mean is 3.54 interpreted as highly implemented. The indicator "single injection of hormone to induce heat" was perceived moderately implemented by the Program beneficiaries and the implementers with means of 3.39 and 3.07,

respectively. The combined mean of 3.23 is also interpreted as moderately implemented.

Artificial insemination. On the Program component on artificial insemination (AI), both group of respondents have similar perception as exhibited in Table 13. As shown, the indicator "artificial insemination is done when heat is observed" was considered highly implemented having obtained a mean of 3.58 from Program beneficiaries and 3.63 from implementers, respectively with a combined mean of 3.61 also given an interpretation of highly implemented. The indicator on "artificial insemination is done after estrus synchronization" was considered moderately implemented by both groups of respondent having obtained a mean of 3.37 from the Program beneficiaries and 3.36 from the implementers with a combined mean of 3.37 also interpreted as moderately implemented.

Pregnancy diagnosis. Shown in Table 13 is the perception of the two groups of respondent on the extent of implementation of the CUP along pregnancy diagnosis. The indicator on "evaluation of size and development of mammary glands" obtained a mean of 3.57 from the Program beneficiaries and 3.53 from the implementers, respectively, but both were given an interpretation as highly implemented. On the other hand, the indicators on "careful evaluation of animal's body condition" and "rectal palpation to determine pregnancy" were perceived as highly implemented by the Program beneficiaries with a mean of 3.74 and 3.64, respectively, and perceived as moderately implemented by the

implementers with a mean of 3.44 and 3.50, for each respectively. However, the combined mean from the responses elicited proved that the general perception of both groups of respondent was that, the Program component on pregnancy diagnosis was highly implemented.

Defluking. The two groups of respondent are in agreement that the Program component on defluking is highly implemented. The indicator "defluking before breeding" obtained a weighted mean of 3.75 from the Program beneficiaries and 3.69 from the implementers with combined mean of 3.72 all interpreted as highly implemented. The indicators on "defluking prior to calving" and "defluking after calving" both obtained a weighted mean of 3.55 interpreted as highly implemented.

Table 14 show that the two groups of respondent unanimously perceived that the CUP was highly implemented on the four Program component on estrus synchronization, artificial insemination, pregnancy diagnosis and defluking with an obtained mean of 3.60 from Program beneficiaries and an obtained mean of 3.51 from implementers and a combined mean of 3.56. As shown, the computed t-value of 1.374 proved to be less than the tabular t-value of 1.725 with degrees of freedom 20 and level of significance set at $\alpha = 0.05$. This led to the acceptance of the null hypothesis which states that "there is no significant difference on the perception of the Program beneficiaries and the implementers on the extent of implementation of the Cup along its various program components: estrus synchronization, artificial insemination, pregnancy diagnosis and defluking".

This implies that the two groups of respondents are in agreement in their perception on the extent of implementation of CUP along its four Program components.

Table 14

Comparative Analysis Between the Perceptions of the Two Groups of Respondent Relative to the Extent of Implementation of the CUP

	Respondent's Category				Combined Mean	
	Beneficiaries		Implementers			
Grand Mean	3.60	HI	3.51	HI	3.56	HI
Computed t-value				1.374		
df				20		
Tabular t-value at $\alpha = 0.05$				1.725		
Evaluation				**Not Significant/ Accept**		

Comparison of the Perceptions of the Program Beneficiaries and Program Implementers on the Extent of Effectiveness of the Carabao Upgrading Program.

This part appraises the extent of effectiveness of CUP as perceived by the Program beneficiaries and the implementers in terms of the following Program concerns: l) poverty alleviation; 2) nutritional improvement; 3) income equity and distribution and 4) people empowerment. This part also compared and analyzed the perception of the two groups of respondent along the aforementioned Programs.

Poverty alleviation. From the point of view of the Program beneficiaries as shown in Table 15, the indicator "production of vigorous, larger, heavier and fast growing calves with higher market value brings more profit" got the highest mean of 3.64 interpreted as highly effective, while the two indicators on "additional income is derived through utilization of upgraded carabao as draft animal for contract work" and "high carcass quality of upgraded carabao results in increased price of carabeef and consequently increased income" was also considered highly effective, both obtaining a mean of 3.63. The indicators on "availability of draft animal aids beneficiaries in farming activities and decreases farm expenses" obtained a mean of 3.51 and given an interpretation as highly effective while the indicator on "upgraded carabao helps beneficiaries in farm operation and is of great help in production program" obtained a mean of 3.38 and interpreted as moderately effective. The lowest mean obtained was 2.98 or moderately effective for the indicator "increased milk production results in additional livelihood through processing of carabao milk to white cheese". As a whole, the grand mean of 3.46 indicated that the general perception of the Program beneficiaries was that the extent of effectiveness of the Carabao Upgrading Program (CUP) was moderately effective in addressing the Program concern on poverty alleviation.

Table 15

Comparison of the Responses of the Program Beneficiaries and Implementers on the Extent of Effectiveness of CUP Along Poverty Alleviation

Indicators	Respondents' Category				Combined Mean	
	Beneficiaries		Implementers			
1. Upgraded carabao helps beneficia ries in farm operation and is of great help in production program.	3.38	ME	3.94	HE	3.66	HE
2. Production of vigorous, larger, heavier and fast growing calves with higher market value brings more profit.	3.64	HE	4.19	HE	3.92	HE
3. Additional income is derived through utilization of upgraded carabao as draft animal for contract work.	3.63	HE	3.69	HE	3.66	HE
4. Increased milk production results in additional livelihood through processing of carabao milk to white cheese.	2.98	ME	3.40	ME	3.19	ME
5. Availability of draft animals aids in farming activities and decreases farm expenses.	3.51	HE	3.88	HE	3.70	HE
6. High carcass quality of upgraded carabao results in increased price of carabeef and consequently increased income.	3.63	HE	3.94	HE	3.79	HE
Total	20.77	-	23.04	-	21.905	-
Mean	3.46	ME	3.84	HE	3.65	HE
Computed t – value : 2.495						
Tabular t – value at df = 10 and $\alpha = 0.05$: 2.228						
Evaluation : Significant / Reject Ho						

LEGEND:

4.51 – 5.00 Extremely Effective (EE)
3.51 – 4.50 Highly Effective (HE)
2.51 – 3.50 Moderately Effective
1.51 – 2.50 Slightly Effective (SE)
1.00 – 1.50 Not Effective at all (NE)

Table 15 also reflects the perception of the implementers. As shown, the highest mean obtained was 4.19 interpreted as highly effective for the indicator "production of vigorous, larger, heavier and fast growing calves with higher market value brings more profit" while two indicators "upgraded carabao helps beneficiaries in farm operation and is of great help in production program" and "high carcass quality of upgraded carabao results in increased price of carabeef and consequently increased income" both got a mean of 3.94, which is interpreted as highly effective. The indicator on "availability of draft animals aids beneficiaries in farming activities and decreases farm expenses" obtained a mean of 3.88 and the indicator on "additional income is derived through utilization of upgraded carabao a draft animal for contract work" obtained a mean of 3.69 both given an interpretation as highly effective. The lowest mean obtained is 3.40 interpreted as moderately effective was for the indicator on "increased milk production results in additional livelihood through processing of carabao milk to white cheese". Taken as a whole, the grand mean of 3.84 is indicative that the extent of effectiveness of the CUP on the Program concern on poverty alleviation is perceived to be highly effective by the implementers.

The same table also revealed the comparison of the responses of the Program beneficiaries and implementers on the extent of effectiveness of the CUP in addressing the Program concern on poverty alleviation. As revealed the two groups of respondent gave the same perception on five of the six indicators, wherein four indicators were rated as highly effective and one indicator was

rated as moderately effective, however, the Program beneficiaries and implementers displayed a disparity of opinion on one indicator. The indicator on "production of vigorous, larger, heavier and fast growing calves with higher market value brings more profit" got the highest obtained mean of 3.64 from the program beneficiaries and an obtained mean of 4.19 from the implementers with a combined mean of 3.92. This is interpreted as highly effective. The indicators on "additional income is derived through utilization of upgraded carabao as draft animal for contract work" and "high carcass quality of upgraded carabao results in increased price of carabeef and consequently increased income" was also perceived highly effective by the two groups of respondent as proven by the obtained means of 3.63 and 3.63 from Program beneficiaries and 3.66 and 3.79 from implementers, respectively. The indicator on "availability of draft animals aids in farming activities and decreases farm expenses" obtained a mean of 3.51 from Program beneficiaries and 3.88 from implementers and a combined mean of 3.70 also given an interpretation as highly effective. The lowest obtained mean of 2.98 from Program beneficiaries and 3.4 from implementers with combined mean of 3.19 and interpreted as moderately effective was for the indicator on " increased milk production results in additional livelihood through processing of carabao milk to white cheese". The two groups of respondent gave different opinion on the indicator on "upgraded carabao helps beneficiaries in farm operation and is of great help in production program". The obtained mean from the Program beneficiaries is 3.8 interpreted as moderately effective and 3.94 from

implementers interpreted as highly effective and a combined mean of 3.66 interpreted as highly effective.

In summary, the grand mean of 3.46 from the Program beneficiaries interpreted as moderately effective and the grand mean of 3.84 from the implementers interpreted as highly effective disclosed that generally the two groups of respondent have different perceptions on the extent of effectiveness of the CUP in addressing the Program concern on poverty alleviation. The combined mean of 3.65, however, is interpreted as highly effective.

The computed t-value which is 2.495 is greater than the tabular t-value of 2.228 at degree of freedom of 10 and at the level of significance set at $\alpha = 0.05$. This led to the rejection of the null hypothesis, which states that "there is no significant difference on the perception of the two groups of respondent on the extent to which the implementation of the CUP is effective in addressing the Program concern on poverty alleviation". This implies that the Program beneficiaries and the implementers are not in conformity on their assessment on this concern.

Nutritional improvement. Presented in Table 16 is the perception of the Program beneficiaries and implementers on the extent of effectiveness of the Carabao Upgrading Program (CUP) in addressing the Program concern on nutritional improvement.

Table 16

Comparison of the Responses of the Program Beneficiaries and Implementers on the Extent of Effectiveness of CUP Along Nutritional Improvement

Indicators	Respondents' Category				Combined Mean	
	Beneficiaries		Implementers			
1. Increased milk yield capacity allows carabao to produce additional quantities of milk for human nutrition apart from those necessary to feed their calves.	3.18	ME	3.56	HE	3.37	ME
2. Increased milk yield gives farmers option to process milk into white cheese for home consumption or for sale.	3.23	ME	3.93	HE	3.58	HE
3. Improved income results in increased purchasing power to meet nutritional needs.	3.47	ME	3.75	HE	3.61	HE
Total	9.88	-	11.24	-	10.56	-
Mean	3.29	ME	3.75	HE	3.52	HE
Computed t – value : 3.253						
Tabular t – value at df = 4 and $\alpha = 0.05$: 2.776						
Evaluation : Significant / Reject Ho						

LEGEND:

4.51 – 5.00 Extremely Effective (EE)
3.51 – 4.50 Highly Effective (HE)
2.51 – 3.50 Moderately Effective (ME)
1.51 – 2.50 Slightly Effective (SE)
1.00 – 1.50 Not Effective at all (NE)

As shown, the Program beneficiaries rated the indicator on " improved income results in increased purchasing power to meet nutritional needs" as moderately effective with a mean of 3.47 and the other indicators on "increased milk yield capacity allows carabao to produce additional quantities of milk for human nutrition apart from those necessary to feed their calves" and "increased

milk yield gives farmers option to process milk into white cheese for home consumption or for sale" were perceived as moderately effective with a mean of 3.18 and 3.23 respectively. In general, the Program beneficiaries considered the extent of effectiveness of the CUP in addressing the Program concern on nutritional improvement as moderately effective having obtained a grand mean of 3.29.

The Program implementers, on the other hand, considered the extent of effectiveness of the CUP in addressing the Program concern on nutritional improvement as highly effective. This is clearly manifested in Table 16, wherein the highest obtained mean of 3.93 for the indicator on "increased milk yield gives farmer option to process milk into white cheese for home consumption or for sale", an obtained mean of 3.75 for the indicator on "improved income results in increased purchasing power to meet nutritional needs" and an obtained mean of 3.56 for the indicator on "increased milk yield capacity allows carabao to produce additional quantities of milk for human nutrition apart from those necessary to feed their calves" were all given an interpretation as highly effective.

The same Table clearly reflects the difference in opinion of the two groups of respondent. The Program beneficiaries rated the extent of effectiveness of the Program concern on nutritional improvement as moderately effective which is manifested by the obtained grand mean of 3.29, while the Program implementers rated this particular Program concern as highly effective which is proven by the

obtained grand mean of 3.75. The combined grand mean of 3.52 from the two groups of respondent was interpreted as highly effective. However, the computed t-value of 3.253 proved to be greater than the tabular t-value of 2.776 with a degree of freedom =4 and a level of significance set at $\alpha = 0.05$. This led to the rejection of the null hypothesis which states that "there is no significant difference on the perception of the two groups of respondent on the extent to which the implementation of the Program is effective in addressing the Program concern on nutritional improvement".

Income equity and distribution. Table 17 presents the responses of the two groups of respondent on the extent of effectiveness of the CUP in addressing the program concern on income equity and distribution.

As presented, the highest mean obtained from the response of the Program beneficiaries is for the indicator on "purchase of farm implements" with an obtained mean of 4.59 interpreted as extremely effective followed by the indicator on "capability to send children to school" with an obtained mean of 3.54 and interpreted as highly effective. The indicator on "home improvement', and "capability to go for medical check-up and buy medicines when necessary" obtained means of 3.44 and 3.41 respectively, while the indicator on "purchase of new clothes" and "purchase of new appliances" obtained means of 3.22 and 2.98 respectively. These were all given an interpretation of moderately effective. Taken as whole, the Program beneficiaries perceived the extent of effectiveness

of the CUP in addressing the Program concern on income equity and distribution as highly effective manifested by the obtained grand mean of 3.53.

Table 17

Comparison of the Responses of the Program Beneficiaries and Implementers on the Extent of Effectiveness of CUP Along Income Equity and Distribution

Indicators	Respondents' Category				Combined Mean	
	Beneficiaries		Implementers			
1. Purchase of farm implements.	4.59	EE	3.25	ME	3.92	HE
2. Capability to send children to school.	3.54	HE	3.38	ME	3.46	HE
3. Home Improvement	3.44	ME	3.47	ME	3.46	ME
4. Capability to go for medical check-up and buy medicines when necessary.	3.41	ME	3.27	ME	3.34	ME
5. Purchase of new clothes.	3.22	ME	3.25	ME	3.24	ME
6.Purchase of new appliances.	2.98	ME	3.44	ME	3.21	ME
Total	21.18	-	20.06	-	20.62	
Mean	3.53	HE	3.34	ME	3.44	ME
Computed t – value : 0.810						
Tabular t – value at df = 10 and $\alpha = 0.05$: 2.228						
Evaluation : Not Significant / Accept Ho						

LEGEND:

4.51 – 5.00 Extremely Effective (EE)
3.51 – 4.50 Highly Effective (HE)
2.51 – 3.50 Moderately Effective (ME)
1.51 – 2.50 Slightly Effective (SE)
1.00 – 1.50 Not Effective at all (NE)

The same table reflects the perception of the Program implementers. As shown, the highest obtained mean of 3.47 is for the indicator on "home

improvement" followed by the indicator on "purchase of new appliances" with obtained mean of 3.44 and the indicator on "capability to send children to school" with obtained mean of 3.38, all given an interpretation as moderately effective. The lowest obtained mean is 3.25 also interpreted as moderately effective for the indicators on "purchase of farm implements" and on "purchase of new clothes". The perception of the Program implementers on the extent of effectiveness of the CUP in addressing the Program concern on income equity and distribution is moderately effective. This is manifested by the grand mean of 3.3

The comparison of the responses of the two groups of respondents is also exhibited in Table 17. As shown, the Program beneficiaries and implementers have different perception on the extent of effectiveness of the CUP in addressing the Program concern on income equity and distribution. From the point of view of the Program beneficiaries, this particular Program concern is highly effective as proven by the obtained grand mean of 3.53 while the implementers deem this Program concern as moderately effective manifested by the obtained grand mean of 3.34. The combined mean from the two groups of respondents is 3.44 and interpreted as moderately effective. Nevertheless, the computed t -value 0.810 is lesser than the tabular t -value 2.228 which led to the acceptance of the null hypothesis which states that "there is no significant difference on the perception of the two groups of respondent on the extent to which the implementation of the CUP is effective in addressing the Program concern on income equity and

distribution ". This proved that generally, the respondents are in agreement on their perception with regards to this Program concern.

People empowerment. Table 18 reflects the perception of the Program beneficiaries and implementers on the extent to which the implementation of the CUP is effective in addressing the Program concern on people empowerment.

Table 18

Comparison of the Responses of the Program Beneficiaries and Implementers on the Extent of Effectiveness of CUP Along People Empowerment

Indicators	Respondents' Category				Combined Mean	
	Beneficiaries		Implementers			
1. Attendance to farmers' classes.	3.66	HE	3.44	ME	3.55	ME
2. Learning of technical skills and knowledge on livestock production and management.	3.73	HE	3.31	ME	3.52	HE
3. Improved self - confidence.	3.64	HE	3.31	ME	3.48	ME
4. Involvement in community organization and activities.	3.70	HE	3.47	ME	3.59	ME
Total	14.73	-	13.53	-	14.13	-
Mean	3.68	HE	3.38	ME	3.53	ME
Computed t – value : 6.402						
Tabular t – value at df = 6 and $\alpha = 0.05$: 2.447						
Evaluation : Significant / Reject Ho						

LEGEND:

4.51 – 5.00 Extremely Effective (EE)
3.51 – 4.50 Highly Effective (HE)
2.51 – 3.50 Moderately Effective (ME)
1.51 – 2.50 Slightly Effective (SE)
1.00 – 1.50 Not Effective at all (NE)

Presented in the Table is the perception of the Program beneficiaries. The indicator on "learning of technical skills and knowledge on livestock production and management" obtained the highest mean of 3.73, followed by the indicator on "involvement in community organizations and activities" with obtained mean of 3.70 while the indicators on "attendance to farmers' classes" and improved self confidence" obtained means of 3.66 and 3.64 respectively. All this indicators were given an interpretation as highly effective.

The perception of the implementers on the extent of effectiveness of the CUP in addressing the Program concern on people empowerment can also be gleaned on the same Table. The indicator on "involvement in community organization and activities" got the highest mean of 3.47 interpreted as moderately effective followed by the indicator on " attendance to farmers' classes" which obtained a mean of 3.44, while the indicators on "learning of technical skills and knowledge on livestock improvement and management" and on "improved self-confidence" both obtained a mean of 3.31 interpreted as moderately effective. The general perception of the implementers is clearly manifested by the grand mean of 3.38 interpreted as moderately effective.

The comparison of the responses of the two groups of respondent is also presented in Table 18. From the Table, it is clear that the respondents differ in their assessment. From the point of view of the Program beneficiaries, the extent of effectiveness of the CUP in addressing the Program concern on people empowerment is highly effective having obtained a mean of 3.68 while the

Program implementers view it as moderately effective with a mean of 3.38. From the combined mean of the respondents, the result is 3.53 also interpreted as moderately effective.

The computed t - value of 6.402 proved to be greater than the tabular t - value of 2.447 which led to the rejection of the null hypothesis which states that "there is no significant difference on the perception of the two groups of respondent on the extent to which the implementation of the CUP is effective on the aspect of people empowerment". This implies different opinions of the two groups of respondents. The lower rating given by the implementers could be attributed to their awareness of the need for improvement along this line.

Problems Encountered by the Respondents Relative to the Implementation of the Carabao Upgrading Program (CUP).

This study also considered the problems encountered by the Program beneficiaries and implementers relative to the implementation of the CUP. The responses generated were summarized and assessed in Tables 19 and 20.

It can be gleaned from Table 19 that all the identified problems were considered moderately felt by the Program beneficiaries with weighted means ranging from 3.37 to 2.92. The highest weighted mean pegged at 3.37 corresponds to the indicator on "lack or inadequate knowledge of Program beneficiaries on processing of fresh milk into other products aside from cheese,

Table 19

Problems Encountered by the Program Beneficiaries Relative to the Implementation of the Carabao Upgrading Program

Indicators	Responses					Total	Mean	Interpretation
	5 EE	4 HF	3 MF	2 SF	1 NF			
1. Continued resistance of targeted beneficiaries to the program.	22	27	113	61	29	268	2.64	MF
2. Lack or absence of financial support from the local government units for the activity.	34	63	86	60	22	273	3.01	MF
3. Rough and difficult roads, which cause poor monitoring by some program implementers.	56	53	58	50	22	270	2.92	MF
4. Lack of commitment and sincerity of some program implementers.	37	33	107	59	21	271	2.87	MF
5. Lack or inadequate knowledge of beneficiaries on processing of fresh milk into other products aside from white cheese, which would generate more income.	63	66	71	40	27	267	3.37	MF
6. Lack or inadequate knowledge of beneficiaries on care and management of carabaos.	52	50	98	49	26	272	3.23	MF
Total	-	-	-	-	-	-	18.03	-
Grand Mean	-	-	-	-	-	-	3.01	MF

LEGEND:

4.51 – 5.00 Extremely Felt (EF)
3.51 – 4.50 Highly Felt (HF)
2.51 – 3.50 Moderately Felt (MF)
1.51 – 2.50 Slightly Felt (SF)
1.00 – 1.50 Not Felt at all (NF)

which would generate more income". The indicator on "lack or inadequate knowledge of beneficiaries on care and management of carabaos" followed with

weighted mean of 3.23 while the indicator on "lack or absence of financial support from the local government units for the activity" obtained a mean of 3.01. The indicator on "rough and difficult roads, which cause poor monitoring by some Program implementers" and the indicator on " lack of commitment and sincerity of some Program implementers" obtained means of 2.92 and 2.87, respectively. The lowest weighted mean was pegged at 2.64 for the indicator on "continued resistance of targeted beneficiaries to the Program". The grand mean of 3.01 is further proof that the Program beneficiaries moderately felt the problems encountered relative to the implementation of the CUP.

The extent to which the Program implementers felt the problems relative to the implementation of the CUP can be gleaned in Table 20. It can be noted that the indicator on "lack or absence of financial support from the local government unit for the activity" is a highly felt problem obtaining the highest weighted mean of 3.88. Other highly felt problems were the indicators on "rough and difficult road which cause poor monitoring by some Program implementers" and on "political intervention in the implementation of the program" both obtaining a mean of 3.56. The remaining four indicators which corresponds to item 1; "continued resistance of targeted beneficiaries to the Program", item 4; "lack of commitment and sincerity of some Program implementers", item 6; "lack or inadequate knowledge of Program beneficiaries on processing of fresh milk into other products aside from cheese, which would

Table 20

Problems Encountered by the Program Implementers Relative to the Implementation of the Carabao Upgrading Program

Indicators	Responses					Total	Mean	Interpretation
	5 EE	4 HF	3 MF	2 SF	1 NF			
1. Continued resistance of targeted beneficiaries to the program.	1	5	7	2	1	16	3.19	MF
2. Lack or absence of financial support from the local government units for the activity.	5	4	5	3	0	16	3.88	HF
3. Rough and difficult roads, which cause poor monitoring by some program implementers.	5	3	4	4	0	16	3.56	HF
4. Lack of commitment and sincerity of some program implementers.	2	1	10	1	1	15	3.13	MF
5. Political intervention in the implementation of the program.	4	5	4	2	1	16	3.56	HF
6. Lack or inadequate knowledge of beneficiaries on processing of fresh milk into other products aside from white cheese, which would generate more income.	4	4	4	3	1	16	3.44	MF
7. Lack or inadequate knowledge of beneficiaries on care and management of carabaos.	4	2	7	3	0	16	3.44	MF
Total	-	-	-	-	-	-	24.20	-
Grand Mean	-	-	-	-	-	-	3.46	MF

LEGEND:

4.51 – 5.00 Extremely Felt (EF)
3.51 – 4.50 Highly Felt (HF)
2.51 – 3.50 Moderately Felt (MF)
1.51 – 2.50 Slightly Felt (SF)
1.00 – 1.50 Not Felt at all (NF)

generate more income" and item 7; "lack or inadequate knowledge of Program beneficiaries on care and management of carabaos" were considered as moderately felt. This is indicated by the obtained grand mean pegged at 3.46.

Comparison of the Extent to which the Respondents Feel the Problems Relative to the Implementation of theCUP along the Four Program Components.

Considering that the two groups of respondents gave their opinions independently of each other, their responses on the extent of the problems felt relative to the implementation of the CUP were compared, analyzed and tabulated in order to gain a clear insight on their perception. The data is presented in Table 21.

The Table revealed that of the seven identified problems, the problem on item 2; which corresponds to the indicator on "lack or absence of financial support from the local government units for the activity" is considered a highly felt problem by the Program implementers obtaining the highest weighted mean of 3.88 while the Program beneficiaries considered it as a moderately felt problem with a weighted mean of 3.01. One problem identified by the implementers is the Problem on "political intervention in the implementation of the Program" with an obtained mean of 3.56 and interpreted as highly felt. The Program beneficiaries, on the other hand, did not even consider it as a problem because it was not included in their identified problems.

Table 21

Comparison of the Responses of the Program Beneficiaries and Implementers on the Problems Encountered Relative to the Implementation of the CUP

Indicators	Respondents' Category				Combined Mean	
	Beneficiaries		Implementers			
1. Continued resistance of targeted farmer beneficiaries to the Program.	2.64	MF	3.19	MF	2.92	MF
2. Lack or absence of financial support from local government units for the activity.	3.01	MF	3.88	HF	3.45	MF
3. Rough and difficult roads, which cause poor monitoring by some program implementers.	2.92	MF	3.56	HF	3.24	MF
4. Lack of commitment and sincerity of some program implementers.	2.87	MF	3.13	MF	3.0	MF
5. Political intervention in the implementation of the program.	-	-	3.56	HF	3.56	HF
6. Lack or inadequate knowledge of beneficiaries on processing of fresh milk into other products aside from white cheese, which would generate more income.	3.37	MF	3.44	MF	3.41	MF
6. Lack or inadequate knowledge of beneficiaries on care and management of carabaos.	3.23	MF	3.44	MF	3.34	MF
Total	18.04	-	24.2	-	22.9	-
Mean	3.01	MF	3.46	MF	3.27	MF
Computed t – value : 3.162						
Tabular t – value at df = 11 and $\alpha = 0.05$: 2.201						
Evaluation : Significant / Reject Ho						

LEGEND:

4.51 – 5.00 Extremely Felt (EF)
3.51 – 4.50 Highly Felt (HF)
2.51 – 3.50 Moderately Felt (MF)
1.51 – 2.50 Slightly Felt (SF)
1.00 – 1.50 Not Felt at all (NF)

The difference in opinion probably stems from the fact that the two groups of respondent have different perspective and outlook in the implementation of the Program. The Program implementers being the persons with the burden of carrying the heavy task and function to carry into effect the various components and concerns relative to the successful implementation of the CUP while the Program beneficiaries being the receiver of the benefit derived for the implementation of the CUP, have the lesser burden.

In summary, however, both groups moderately felt the problems relative to the extent of the implementation of the CUP along the four Program components. This is proven by the obtained grand mean of 3.01 from the Program beneficiaries and an obtained grand mean of 3.46 from the implementers, both interpreted as moderately felt. The combined grand mean of the respondent is 3.27 also interpreted as moderately felt.

In order to determine if there is a significant difference in the perception of the respondents, the t - test for independent samples was employed. The computed t - value of 3.162 proved to be greater than the tabular t – value of 2.201 at degree of freedom = 11 and level of significance set at α =0.05. This led to the rejection of the null hypothesis, which states "there is no significant difference on the extent to which the two groups of respondent feel the problems relative to the implementation of the CUP". This implies that the respondents are not in conformity with each other.

Solutions/ Suggestions Given by Respondents Relative to the Implementation of the CUP in Pilot Areas of Samar.

This study also solicited solutions and suggestions from the two groups of respondents regarding the problems encountered relative to the implementation of the Carabao Upgrading Program (CUP) in pilot areas of Samar. The data is presented in Table 22.

Table 22 show that the suggested solutions by the Program beneficiaries obtained means ranging from 3.89 - 4.13 and were given interpretation as "agree". From the solutions suggested the indicator on "establish and maintain linkages with other agencies concerned like the Philippine Carabao Center (PCC), Leyte State University (LSU) and Department of Agriculture - Regional Field Unit (DA-RFU 8) for continued support and assistance on the Program" got the highest mean 4.13, followed by the solution on "lobbying with local chief executives and sanggunian for support of the program" and "establish good rapport and relationship with program implementers through regular meetings and dialogues" which both got a mean of 4.02. Item number 2 which correspond to the solution on "conduct information dissemination at barangay level re: Carabao Upgrading Program" got 3.98 and item number 1 corresponding to the solution on "conduct information dissemination through print and broadcast" attained a mean 3.89. As a whole, the Program beneficiaries agreed to all the suggested solutions as indicated by the grand mean of 4.01.

Table 22

Solutions Suggested by the Program Beneficiaries and Implementers Relative to the Problems Encountered in the Implementation of the Carabao Upgrading Program (CUP)

Indicators	Respondent	Responses 5 EE	4 HF	3 MF	2 SF	1 NF	Total	Mean	Interpretation
1. Conduct information dissemination through print and broadcast.	PB	76	119	41	25	5	266	3.89	A
	PI	7	3	2	0	0	12	4.42	A
2. Conduct information dissemination at barangay level re: Carabao Upgrading Program.	PB	85	126	36	24	2	273	3.98	A
	PI	8	3	1	0	1	13	4.31	A
3. Conduct trainings and seminars to Program beneficiaries on care and management of carabaos and milk processing.	PB	-	-	-	-	-	-	-	-
	PI	8	4	1	1	0	14	4.36	A
4. Lobbying with local chief executive (LCE) and Sanggunian for support.	PB	90	124	35	20	2	272	4.02	A
	PI	7	4	2	0	0	13	4.38	A
5. Establish good rapport and relationship with Program implementers through regular meetings and dialogues.	PB	89	123	38	18	3	271	4.02	A
	PI	7	4	1	1	0	13	4.31	A
6. Establish and maintain linkages with other agencies concerned like the Philippine Carabao Center (PCC), Leyte State Univerity (LSU), and Department of Agriculture – Regional field Unit 8 (DA-RFU 8) for continued support and assistance on the Program.	PB	117	102	31	22	2	274	4.13	A
	PI	7	4	1	0	1	13	4.23	A
Total	PB	-	-	-	-	-	-	20.04	-
	PI	-	-	-	-	-	-	26.00	-
Grand Mean	PB	-	-	-	-	-	-	4.01	A
	PI	-	-	-	-	-	-	4.33	A

Legend:

PB - Program Beneficiaries

4.51 – 5.00 Strongly Agree (SA)
3.51 - 4.50 Agree (A)
2.51 – 3.50 Moderately Agree (MA)

PI - Program Implementers

1.51 – 2.50 Disagree (D)
1.00 – 1.50 Strongly Disagree (SD)

The suggested solutions by the Program implementers to the implementation of Carabao Upgrading Program (CUP) obtained means ranging from 4.23 - 4.42, all interpreted that the Program implementers agreed to their enumerated solutions. As shown in Table 22, the highest weighted mean of 4.42 is the solution on item number one, corresponding to "conduct information dissemination through print and broadcast" while the solution on "lobbying with local chief executive and sanggunian for support of the Program" got a weighted mean of 4.38. The solution "conduct training and seminars to Program beneficiaries on care and management of carabaos and milk processing" obtained a weighted mean of 4.36 while solutions on "conduct information dissemination at barangay level re: Carabao Upgrading Program" and "establish good rapport and relationships with Program implementers through regular meetings and dialogues" obtained a mean of 4.31, each. Lastly, "establish and maintain linkages with other agencies concerned like the PCC, LSU and DA - RFU 8 for continued support and assistance on the Program" obtained a mean of 4.23. Generally, the Program implementers agreed to the suggested solutions relative to the problems encountered in the implementation of the Carabao Upgrading Program. This perception is proven by the obtained grand mean of 4.33.

It can be noted also from the Table that the suggested solution which corresponds to the indicator on "conduct trainings and seminar to Program beneficiaries on care and management of carabaos and milk processing" was not

included in the solutions suggested by the Program beneficiaries although the Program implementers "agreed" on this particular solution having obtained a mean of 4.36. Again, the disparity in opinion can be attributed on the difference in the outlook and perspective of the two groups of respondent.

Inputs to Program Enhancement

Based on the findings of this study, the following inputs were extracted that would be useful in the enhancement of the Carabao Upgrading Program (CUP).

1. Conduct massive and extensive information dissemination through print and broadcast. The conduct of massive and extensive information dissemination through print and broadcast would ensure understanding and awareness on the aims and objectives of the CUP especially on the Program components on estrus synchronization, artificial insemination, pregnancy diagnosis and defluking. Eventually, the benefits derived from the implementation of the Program would be more appreciated by the Program beneficiaries and other stakeholders.

2. Conduct trainings and seminars on livelihood projects. The conduct of trainings and seminars on livelihood projects particularly processing of fresh milk to white cheese, pastilles de "leche" and other products would generate more income improving the economic condition of the Program beneficiaries.

Improved economic condition would improve their self worth and in the process make them better and useful individuals in the community.

3. Lobbying with the local chief executive (LCE) and sangguniang panlalawigan for support of the CUP. The Office of the Provincial Agriculturist as the lead implementing agency should make representation to the present local chief executive and sangguniang panlalawigan to support the institutionalization of the budget for the Carabao Upgrading Program (CUP) so that there will be regular funding or appropriation of funds corresponding to CUP activities, and also for the approval and speedy release of allocated funds.

4. Organize barangays into clusters. One consequence of working in the agriculture sector is exposure to rough and difficult roads. In order to better serve the Program beneficiaries, barangays should be organized and formed into cluster composed of three to five barangays so that carabaos submitted for the CUP will be brought and gathered in one place accessible to both the Program beneficiaries and the implementers.

5. Strengthen linkages with local government units (LGU) and local chief executive (LCE) /Sanguniang bayan (SB) concerned. Strengthen linkages with LGU by establishing good rapport, periodic consultation and regular submission of tangible accomplishment report to LCE/Sanguniang Bayan through the Committee on Agriculture for their information and reference.

6. Periodic monitoring and evaluation of the CUP. Monitoring and evaluation of the CUP should be conducted quarterly to determine if proposed

target are attained as planned and to make adjustments or immediate action to problems encountered in the course of the program implementation.

Chapter 5

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

This chapter discusses the significant findings of this study, the conclusions that were drawn as well as the recommendations that were generated with the hope that it will be useful towards the improvement of the Carabao Upgrading Program (CUP).

Summary of Findings

The following are the salient findings of the study:

1. The average age of Program beneficiaries was 51.16 years with standard deviation of 11.72 years. Majority of the Program beneficiaries were male comprising 80.66 percent while the female comprised 19.34 percent.

2. Majority of the Program beneficiaries are married comprising 88.32 percent 4.01percent are widow/widower, 2.19 percent are single, and 1.46 percent were separated.

3. The average family income for the Program beneficiaries is PHP 3,236.52 with standard deviation of PHP 2,363.72.

4. The average family size of Program beneficiaries is composed of nine members with standard deviation of three members.

5. Majority of the Program beneficiaries are elementary level comprising 54.38 percent while 17.88 percent are elementary graduate. The rest of the

Program beneficiaries are high school level, high school graduate and college level. A mere 0.36 percent graduated from college.

6. The Program beneficiaries on the average owned two carabaos with standard deviation of one carabao.

7. The average age of Program implementers was 43.81 years with standard deviation of 10.19 years. Majority of the Program implementers are male comprising 62.50 percent while the female comprised 37.50 percent.

8. Majority of the Program implementers are married comprising 75 percent, 12.50 percent are single and 6.25 percent are widow/widower. Those who did not specify their civil status comprised 6.25 percent.

9. The average family income per month of Program implementers was PHP 10,838.75 with standard deviation of PHP 5,908.91.

10. The average family size of the Program implementers is composed of five members with standard deviation of three members.

11. Majority of the Program implementers are college graduate comprising 81.25 percent and only 18.75 percent are MA/MS graduate.

12. The average years of involvement of Program implementers in the CUP was 4.50 years with standard deviation of 2.54 years.

13. As regards the perception of respondents on the extent of implementation of CUP along estrus synchronization, the Program beneficiaries considered it highly implemented with a grand mean of 3.63 while the Program implementers considered it moderately implemented with a grand mean of 3.36.

14. As regards the perception of respondents on the extent of implementation of the CUP along artificial insemination, the Program beneficiaries considered it moderately implemented with a grand mean of 3.48 likewise the Program implementers also considered it moderately implemented with a grand mean of 3.49.

15. As regards the perception of respondents on the extent of implementation of the CUP along pregnancy diagnosis, the Program beneficiaries considered it highly implemented with a grand mean of 3.65 while Program implementers considered it moderately implemented with a grand mean of 3.49.

16. As regards the implementation of the CUP along the Program component defluking, the Program beneficiaries considered it highly implemented with a grand mean of 3.62. In like manner, the Program implementers considered it highly implemented with a grand mean of 3.67.

17. The two groups of respondent are in conformity that the extent of implementation of the CUP on the four Program components on estrus synchronization (ES), artificial insemination (AI), pregnancy diagnosis (PD) and defluking is highly implemented (HI). Their difference lies in the obtained grand mean of 3.60 from the Program beneficiaries and an obtained grand mean of 3.51 from Program implementers. To ascertain whether the numerical differences were significant, the t-test for independent samples was employed. The computed t – value 1.374 proved to be lesser than the tabular t – value 1.725 at

0.05 level of significance with degrees of freedom = 20. Therefore, the null hypothesis "there is no significant difference on the perceptions of the Program beneficiaries and Program implementers on the extent of implementation of the program components estrus synchronization, artificial insemination, pregnancy diagnosis and defluking" is accepted. This implied that the two groups of respondents are in agreement on their perception of the extent of implementation of CUP along its program components.

18. The extent of effectiveness of the implementation of the CUP in addressing poverty alleviation was perceived moderately effective by the Program beneficiaries as proven by the obtained grand mean of 3.46 while the Program implementers perceived it highly implemented as proven by the obtained grand mean of 3.84.

19. There is a disparity in the opinion of the two groups of respondent as to the extent of effectiveness of implementation of the CUP in addressing nutritional improvement. The Program beneficiaries considered it moderately effective with an obtained grand mean of 3.29 while Program implementers considered it highly effective with an obtained grand mean of 3.75.

20. The perception of the two groups of respondent differed on the extent of effectiveness of the implementation of the CUP in addressing income equity and distribution. The Program beneficiaries considered it highly effective having obtained a grand mean of 3.53 while Program implementers considered it moderately effective having obtained a grand mean of 3.34.

21. As regards the perception of the respondents on the effectiveness of the implementation of CUP in addressing people empowerment, the Program beneficiaries considered it highly effective with a grand mean 3.68 while the Program implementers considered it moderately implemented with grand mean obtained of 3.38

22. In the comparison of perception of the two groups of respondents in terms of extent of effectiveness of CUP in addressing poverty alleviation, the Program beneficiaries rated it moderately implemented with a mean of 3.46 while the Program implementers rated it highly effective with obtained grand of 3.84 and their combined mean is 3.65 with adjectival rating highly effective. In order to determine the significant difference on the perception of the two groups of respondent, the t-test for independent samples was utilized. The computed t – value of 2.495 proved to be greater than the tabular t – value of 2.228 at degrees of freedom = 10 and level of significance set at 0.05, therefore the null hypothesis "there is no significant difference on the perception of the two groups of respondents on the extent to which the implementation of CUP is effective on the aspect of poverty alleviation" is rejected. This implied that the two groups of respondents are not in agreement on their assessment.

23. In the comparison of perception of the two groups of respondent in terms of the extent of effectiveness of the CUP in addressing nutritional improvement, the Program beneficiaries considered it moderately effective with a grand mean of 3.29 while the Program implementers obtained a grand mean of

3.75 with adjectival rating highly effective. Their combined mean of 3.52 is interpreted as highly effective. The t-test for independent samples was employed to ascertain the significant difference. The computed t- value of 3.253 proved to be greater than the tabular t – value of 2.776 with degrees of freedom = 4 and level of significance set at 0.05. This led to the rejection of the null hypothesis "there is no significant difference on the perception of the two groups of respondents on the extent to which the implementation of CUP is effective in addressing nutritional improvement". This implied that the respondents differ in their assessment.

24. In the comparison of perception of the two groups of respondents in terms of the extent of effectiveness of the CUP in addressing income equity and distribution, the Program beneficiaries considered it highly effective with a grand mean of 3.53 while Program implementers considered it moderately effective with a grand mean of 3.34. The combined mean of 3.44 was interpreted as moderately effective. To ascertain whether there is significant difference on the perception of the two groups of respondents, the t-test was employed. The computed t- value of 0.810 is lesser than the tabular t – value of 2.228 at degrees of freedom = 10 and level of significance set at 0.05, therefore the null hypothesis which states "there is no significant difference on the perception of the two groups of respondents on the extent to which the implementation of CUP is effective on the aspect of income equity and distribution" is accepted. This proved that the respondents are in agreement with regards to their assessment.

25. In the comparison of the perception of the two groups of respondent in terms of the extent of effectiveness of the CUP in addressing people empowerment, the Program beneficiaries considered it highly effective with a grand mean 3.68 while Program implementers considered it moderately implemented with grand mean 3.38. Their combined mean of 3.53 was interpreted as moderately effective. The t-test was employed to determine if there is significant difference on the perception of the respondents. The computed t- value of 6.402 proved to be greater than the tabular t – value of 2.447 with degrees of freedom = 6 and level of significance set at 0.05. This led to the rejection of the null hypothesis "there is no significant difference on the perception of the two groups of respondents on the extent to which the implementation of CUP is effective in addressing people empowerment". This implied that the respondents are not in conformity with their assessment.

26. Generally, the respondents moderately felt the problems relative to the implementation of CUP. This was manifested by the grand mean of 3.01 from the Program beneficiaries and grand mean of 3.46 from the Program implementers.

27. Pertaining to the comparison of the perception of the respondents on the problems encountered relative to the implementation of the CUP, the two groups of respondent more or less gave the same adjectival rating, which is moderately felt. However, they differ in that the mean obtained from Program beneficiaries is 3.01 while from the Program implementers, the mean obtained is

3.46. To ascertain whether the numerical difference were significant, the t- test was employed. The computed t – value of 3.162 proved to be greater than the tabular t – value of 2.201 at degrees of freedom = 11 with level of significance set at 0.05 which led to the rejection of the null hypothesis " there is no significant difference on the extent to which the two groups of respondents feel the problems relative to the implementation of CUP".

28. Taken as a whole, the two groups of respondent agreed that the identified solutions would address the problems encountered relative to the implementation of the CUP as manifested by the obtained grand mean of 4.01 from Program beneficiaries, and grand mean of 4.33 from Program implementers.

Conclusions

On the basis of the findings of this study the following conclusions were drawn:

1. The typical Program beneficiaries were 51.12 years old, male, married with an average income of PHP 3,236.52 with average family size composed of nine members, elementary level and owner of two carabaos on the average. This data denotes that the typical Program beneficiaries earn income below the poverty threshold level for Region VIII for year 2000, which was PHP 10,783.00.

2. The typical Program implementers were 39.50 years old, male, married with an average income of PHP 10,838.75 and average family size composed of

five members, college graduate and on the average have been involved for 4.50 years in the implementation of CUP. This data denotes that based on the poverty threshold level for Region VIII for the year 2000 which was PHP 10,783.00 the typical Program implementers earn income which is just enough to meet the basic necessities of life.

3. The two groups of respondent are in agreement in terms of the extent of implementation of the CUP along its four Program components on estrus synchronization (ES), artificial insemination (AI), pregnancy diagnosis (PD) and defluking, thus the null hypothesis to that effect was accepted.

4. The Program beneficiaries and implementers manifested disparity in their perception on the extent of effectiveness of the CUP in addressing the Program concerns on poverty alleviation, nutritional improvement and people empowerment thus, the corresponding null hypothesis to that effect was rejected but they manifested essentially similar perception on the extent of effectiveness of the implementation of the CUP on income equity and distribution, which led to the acceptance of the null hypothesis to that effect.

5. The problems encountered by the respondents in the implementation of the CUP were moderately felt. In addition the problems were manageable considering that the respondents themselves had thought of the solutions to address these problems.

Recommendations

The following recommendations were based on the findings and conclusions of this study.

1. Intensify the conduct and monitoring of Carabao Upgrading Program putting more focus and attention on the Program component on artificial insemination.

2. Conduct trainings on the processing of fresh carabao's milk to better address the CUP concern along poverty alleviation and nutritional improvement.

3. Conduct/undertake information caravan, radio broadcast and dialogue with local officials in order to have wider dissemination of the aims and objectives of the CUP.

4. Conduct Program orientation to LGU officials on the necessity of the CUP and to address the problem on lack of financial support.

5. Conduct regular review and planning sessions together with line agencies and stakeholders.

6. Undertake a parallel study in the municipalities covered in the expanded CUP within the Province of Samar to validate the findings of this study.

7. Conduct a sequel study to correlate the personal profile of the Program beneficiaries and Program implementers on the level and extent of Program implementation.

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APPENDICES

APPENDIX A

Republic of the Philippines
Samar State University
Catbalogan, Samar

August 30, 2004

The Dean
Graduate Studies
Samar State University
Catbalogan, Samar

Madam,

May I have the honor to request approval of one of the following research problems, preferably problem number 1.:

1. AN ASSESMENT OF THE CARABAO UPGRADING PROGRAM IN PILOT AREAS OF SAMAR : INPUT TO PROGRAM ENHANCEMENT.

2. THE EFFECT OF DEVOLUTION IN THE PERFORMANCE OF DEVOLVED PERSONNEL IN THE PROVINCE OF SAMAR.

3. AN ASSESSMENT OF BARANGAY LIVESTOCK BREEDING LOAN PROGRAM (BLBLP) OF DEPARTMENT OF AGRICULTURE IN RELATION TO ECONOMIC UPLIFTMENT OF FARMERS.

Hoping for a favorable action on this matter.

Very truly yours,

(SGD.) JULIET T. DAYAP
Researcher

Approved:

(SGD.) MARILYN D. CARDOSO Ph.D.
Dean, College of Graduate Studies

APPENDIX B

Republic of the Philippines
Samar State University
Catbalogan, Samar

COLLEGE OF GRADUATE STUDIES

Assignment of Adviser

September 6, 2004

Dear Dr. Marco,

Please be informed that you have been designated as adviser of Ms. Juliet T. Dayap, candidate for the degree in MPM - Plan A who proposes to write a thesis on **"An Assessment of the Carabao Upgrading Program in Pilot Areas of Samar : Inputs to Program Enhancement".**

Thank you for your cooperation.

Very truly yours,

(SGD.) MARILYN D. CARDOSO, Ph.D.
Dean, College of Graduate Studies

CONFORME:

(SGD.) DEBORAH T. MARCO, Ph. D.
Adviser

APPENDIX C

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

COLLEGE OF GRADUATE STUDIES

December 15, 2005

HON. VICENTE C. LABUAC
Municipal Mayor
Basey, Samar

Sir:

This is to inform your level that the undersigned researcher is conducting a study entitled " **An Assessment of the Carabao Upgrading Program (CUP) in pilot areas of Samar: Inputs to Program Enhancement** ", which is a requirement for the degree, Master in Public Management, at Samar State University.

In this connection, may I request permission from your Office to field questionnaires to be distributed to the Program Beneficiaries and Program Implementers in your Municipality. Rest assured that whatever data and information gathered from the respondents will be used only for this research and will be treated confidentially.

Hoping for your most favorable consideration on this matter.

Very truly yours,

JULIET T. DAYAP
Researcher

APPENDIX D

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

COLLEGE OF GRADUATE STUDIES

December 15, 2005

HON. BEATRIZ B. TIOPES
Municipal Mayor
Sta. Rita, Samar

Madam:

This is to inform your level that the undersigned researcher is conducting a study entitled " **An Assessment of the Carabao Upgrading Program (CUP) in pilot areas of Samar: Inputs to Program Enhancement** ", which is a requirement for the degree, Master in Public Management, at Samar State University.

In this connection, may I request permission from your Office to field questionnaires to be distributed to the Program Beneficiaries and Program Implementers in your municipality. Rest assured that whatever data and information gathered from the respondents will be used only for this research and will be treated confidentially.

Hoping for your most favorable consideration on this matter.

Very truly yours,

JULIET T. DAYAP
Researcher

APPENDIX E

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

COLLEGE OF GRADUATE STUDIES

December 15, 2005

HON. CARLO R. LATORRE
Municipal Mayor
Villareal, Samar

Sir:

This is to inform your level that the undersigned researcher is conducting a study entitled " **An Assessment of the Carabao Upgrading Program (CUP) in pilot areas of Samar: Inputs to Program Enhancement** ", which is a requirement for the degree, Master in Public Management, at Samar State University.

In this connection, may I request permission from your Office to field questionnaires to be distributed to the Program beneficiaries and Program Implementers in your Municipality. Rest assured that whatever data and information gathered from the respondents will be used only for this research and will be treated confidentially.

Hoping for your most favorable consideration on this matter.

Very truly yours,

JULIET T. DAYAP
Researcher

APPENDIX F

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

COLLEGE OF GRADUATE STUDIES

December 15, 2005

HON. MARIO L QUIJANO
Municipal Mayor
Pinabacdao, Samar

Sir:

This is to inform your level that the undersigned researcher is conducting a study entitled " **An Assessment of the Carabao Upgrading Program (CUP) in pilot areas of Samar: Inputs to Program Enhancement** ", which is a requirement for the degree, Master in Public Management, at Samar State University.

In this connection, may I request permission from your Office to field questionnaires to be distributed to the Program Beneficiaries and Program Implementers in your Municipality. Rest assured that whatever data and information gathered from the respondents will be used only for this research and will be treated confidentially.

Hoping for your most favorable consideration on this matter.

Very truly yours,

JULIET T. DAYAP
Researcher

APPENDIX G

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

COLLEGE OF GRADUATE STUDIES

December 15, 2005

HON. LUZVIMINDA L NACARIO
Municipal Mayor
Calbiga, Samar

Madam:

This is to inform your level that the undersigned researcher is conducting a study entitled " **An Assessment of the Carabao Upgrading Program (CUP) in pilot areas of Samar: Inputs to Program Enhancement** ", which is a requirement for the degree, Master in Public Management, at Samar State University.

In this connection, may I request permission from your Office to field questionnaires to be distributed to the Program Beneficiaries and Program Implementers in your Municipality. Rest assured that whatever data and information gathered from the respondents will be used only for this research and will be treated confidentially.

Hoping for your most favorable consideration on this matter.

Very truly yours,

JULIET T. DAYAP
Researcher

APPENDIX H

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

COLLEGE OF GRADUATE STUDIES

February 01, 2006

Sir / Madam:

Greetings!

Please be informed that you have been chosen as respondent of the study entitled: **"An Assessment of the Carabao Upgrading Program (CUP) in pilot areas of Samar: Inputs to Program Enhancement"**. Kindly give your honest and sincere answer to the questions in order to make this study a reliable one. Rest assured that your answers will be used only for this research and will be treated confidentially.

Thank you very much for sharing your ideas and valuable time.

Very truly yours,

JULIET T. DAYAP
Researcher

APPENDIX I
The Questionnaire
(For Program Implementers)

General Direction :

Please write the information being asked in the space provided.

PART I: PROFILE OF THE RESPONDENTS

Name _____ Age _____ Sex _____

Civil Status _____ No. of Children (If married) _____

Do you have relatives living with you? _____ If yes, how many? _____

Agency Office: _____

Position / Designation _____

Average Family Income _____

Educational Attainment _____

No. of years of involvement in Carabao Upgrading Program _____

PART II: EXTENT OF IMPLEMENTATION OF THE DIFFERENT COMPONENTS OF THE CARABAO UPGRADING PROGRAM (CUP).

Direction : Please give your honest opinion as to the extent of implementation of the following Program components by checking the appropriate column, which corresponds to your assessment. For your guidance, kindly base your perception according to the following scale:

5 If the program component is Fully Implemented (FI)

4 If the program component is Highly Implemented (HI)

3 If the program component is Moderately Implemented (MI)

2 If the program component I Poorly Implemented (PI)

1 If the program component is Not Implemented (NI)

Program / Component	FI 5	HI 4	MI 3	PI 2	NI 1
1) Pregnancy Diagnosis (PD)					
a) Careful evaluation of animal`s body condition.					
b) Evaluation of size and development of mammary glands.					
c) Rectal palpation to determine pregnancy.					
2) Estrus Synchronization (ES)					
a) External signs of estrus or heat determined.					
b) Stage of estrus or heat of animal evaluated through mucus discharge.					
c) Single injection of hormone to induce heat.					
3) Artificial Insemination (AI)					
a) Artificial insemination when natural heat is observed.					
b) Artificial insemination after estrus synchronization.					
4) Defluking					
a) Defluking before breeding					
b) Defluking prior to calving					
c) Defluking after calving					

Part III: EXTENT OF IMPLEMENTATIONOF THE PROGRAM RELATIVE TO THE FOLLOWING CONCERNS: poverty alleviation, nutritional improvement, income equity and distribution and people empowerment.

Direction : Please give your honest opinion as to the extent of implementation of the Carabao Upgrading Program (CUP) relative to poverty alleviation, nutritional improvement, income equity and distribution, and people

empowerment. Kindly base your perception according to the following scale:

5 If the program is Extremely Effective (EE)

4 If the program is Highly Effective (HE)

3 If the program is Moderately Effective (ME)

2 If the program is Slightly Effective (SE)

1 If the program is Not Effective at all (NE)

Concerns	EE 5	HE 4	ME 3	SE 2	NE 1
1. Poverty Alleviation					
1.1) Upgraded carabao helps beneficiaries in farm operation and is of great help in production program.					
1.2) Production of vigorous, larger, heavier, and fast-growing calves with higher market value brings more profit.					
1.3)Additional income through utilization of upgraded carabao as draft animal for contract work.					
1.4)Increased milk production results in additional livelihood through processing of carabao milk to white cheese.					
1.5)Availability of draft animals, which aids beneficiaries in farming activities and decreases farm expenses.					
1.6)High carcass quality of upgraded carabao results in increased price of carabeef and consequently increased income.					
2. Nutritional Improvement					
2.1) Milk yield capacity allows carabao to produce additional quantities of milk for human nutrition apart from those necessary to feed their calves.					
2.2) Increased milk yield gives farmers option to process milk into white cheese for home consumption or for sale.					

Concerns	EE 5	HE 4	ME 3	SE 2	NE 1
2.3)Improved income results in increased purchasing power to meet nutritional needs.					
3. Income Equity and Distribution					
3.1) Purchase of new appliances.					
3.2) Purchase of farm implements.					
3.3) Home improvement.					
3.4) Purchase of new clothes.					
3.5) Capability to send children to school.					
3.6) Capability to go for medical check-up and buy medicines when necessary.					
4. People Empowerment					
4.1) Attendance to farmers' classes.					
4.2) Learning of technical skills and knowledge on livestock production and management.					
4.3) Improved self confidence.					
4.4) Involvement in community organization and activities.					

Part IV: PROBLEMS ENCOUNTERED

Direction : Please check on the space provided, the answer, which corresponds to your own perception on the gravity of the problem encountered. Kindly base your perception on the following scale:

5 - Extremely Felt (EF)

4 - Highly Felt (HE)

3 - Moderately Felt (ME)

2 - Slightly Felt (SE)

1 - Not Felt at all (NF)

Problems Encountered	EE 5	HF 4	MF 3	SF 2	NF 1
1) Continued resistance of targetted farmer benificiaries to the Program.					
2) Lack or absence of financial support from local government units for the activity.					
3) Rough and difficult roads, which cause poor monitoring by some Program implementers.					
4) Lack of commitment and sincerity of some Program implementors.					
5) Political intervention in the implementation of the program.					
6) Lack or inadequate knowledge of beneficiaries on processing of fresh milk into other products aside from white cheese, which would generate more income.					
7) Lack or inadequate knowledge of beneficiaries on care and management of carabaos.					

Part V: SUGGESTED SOLUTIONS

Direction : Kindly check the strength of your argument on the space provided using the following scale.

5 - Strongly Agree (SA)
4 - Agree (A)
3 - Moderately Agree (MA)
2 - Disagree (D)
1 - Strongly Disagree (SD)

Suggested Solution	SA 5	A 4	MA 3	D 2	SD 1
1) Conduct information dissemination through print and broadcast.					
2) Conduct information dissemination at barangay level re: Carabao Upgrading Program.					
3) Conduct training and seminars to farmer beneficiaries on care and management of carabaos and milk processing.					
4) Lobbying with local chief executive (LCE) and Sanggunian for support of the Program.					
5) Establish good rapport and relationship with Program implementors through regular meetings and dialogues.					
6) Establish and maintain linkages with other agencies concerned like the Philippine Carabao Center (PCC), Leyte State University, and Department of Agriculture-Regional Field Unit (DA-RFU 8) for continued support and assistance on the Program.					

THANK YOU VERY MUCH!

APPENDIX J

Republic of the Philippines
SAMAR STATE UNIVERSITY
Catbalogan, Samar

COLLEGE OF GRADUATE STUDIES

February 01, 2006

Tinahud nga Sangkay:

Usa ka han akon napile nga magbabaton kunta hine nga mga paki-ana mahitungod han implementasyon han programa nga pagpadukwag han Lahi han Karabaw ha iyo lugar. Mahitungod hine, makiki-angbit ako han imo panahon, ngan mapaalayon ha imo pagpabaton hine nga mga paki-ana. Alayon la paghatag han imo tim-os ug sinsero nga baton. Akon ginpapatapud ha imo nga ine nga imo baton gagamiton la para hine nga katuyu-anan.

Damo na la nga salamat ngan maupay nga kaadlawon.

An matinalahuron,

JULIET T. DAYAP

APPENDIX K

Mga Paki-ana

(Ngadto han parag-uma / magmarangno hin hayop)

Pankabug - osan nga direksyon:

Alayon la hin pagsurat han mga impormasyon nga gin-aaro ngan pagtsek (/) kun kinahanglanon, dida han bakante nga lugar para han imo baton ha kada paki-ana.

Una nga parte. Mahiunong hin impormasyon personal han benepisyaryo.

Ngaran _____ edad _____ ☐ babaye ☐ lalaki

Sibil nga Estado _____ Pipira man an mga anak _____

May kauropdan ka ba nga nalungon ha imo? _____

Kun may-ada, pira man an nalungon ha imo? _____

Gihahataasi nga pag-aradman nga naabot _____

Pira man an kita han pamilya ha kada bulan? _____

Pipira man an imo ginmamangnuan nga karabaw yana? _____

Ikaduha nga parte: Diin tubtub an pagimplementar han magkadurodilain nga buruhaton kaparte han Programa Pagpadukwag han Lahi han Karabaw (CUP) dinhe ha imo lugar? Alayon la hin pagtsek (/) han imo baton dida hit rumbay han kada numero nga nasusubay hit imo ginhuhunahunaan. An imo baton tatagan hin kahulogan pinaagi han masunod.

5 - Hul-os nga implementasyon (HI)

4 - Maupay nga implementasyon (MI)

3 - Tama la nga implementasyon (TI)

2 - Maraut nga implementayon (MaI)

1 - Waray implementasyon (WI)

Programa	HI 5	MI 4	TI 3	MaI 2	WI 1
1) Mahiunong han pregnancy diagnosis (PD) o pag-eksamin han burod nga karabaw.					
a) Pag-eksamin ngan pag-ebalwar han kondisyon han karabaw.					
b) Pag-eksamin ngan pag-ebalwar han kondisyon ug pagtubo han mga suso.					
k) Rektal nga pag-eksamin han burod nga karabaw.					
2) Mahiunong han Estrus Synchronization (ES) o durungan nga pagpahimarut han karabaw.					
a) Pag-obserba han mga senyales o pangila-an han paghimarot han karabaw.					
b) Pag-ebalwar han estado han paghimarot han karabaw pinaagi han muhog nga nagawas ha pwerta.					
k) Usa la ka-paagi nga pag-injection han hormone para pagpahimarot.					
3) Mahiunong han artificial insemination (AI)					
b) Artificial insemination han natural nga paghimarot					
c) Artificial insemination han ginpahimarot pinaagi han pag-injection han hormone.					
4) Mahiunong han pagpurga.					
a) Pagpurga antis an pagburod.					
b) Pagpurga antis an panganak.					
k) Pagpurga kahuman panganak.					

Ikatulo nga parte: Kahiluagon han implementasyon han Programa kasumpay han masunod nga karukayaknon: Pag-iban han kapobrehan, Pagpauswag han Pagjaon ug panlawas, Igo nga kita o Income ha Panginabuhi ug kagarastusan, ngan an Paghatag Gahum han Katawhan.

Direksyon: Alayon paghatag han imo tangkud nga opinyon subay han imo nahibabaruan han kahiluagon han implementasyon han Programa han Pagpauswag han Mamat han Karabaw (Carabao Upgrading Program o CUP) nga may kalabutan han : Pag-iban han Kapobrehan, Pagpauswag han Pagkaon ug Panlawas, Igo nga Kita ug Kagarastusan, ngan Paghatag Gahum han Katawhan. An imo baton tatagan hin kahulogan pina-agi han masunod:

5 - Kon an Programa Sobra hin Duro ka Epektibo (SE)

4 - Kon an programa Duro ka Epektibo (DE)

3 - Kon an Programa Igo-igo la ka Epektibo (IE)

2 - Kon an Programa Guti-ay la an Epekto (GE)

1 - Kon an Programa Dire gud Epektibo (DgE)

KARUKAYAKNON	SE 5	DE 4	IE 3	GE 2	DgE 1
1. Pag-iban han Kapobrehan.					
1.1 An mestizo nga karabaw nakakabulig ha benepisyaryo han iya pag-uma ngan dako an pakabulig han Programa, ha pagpauswag han produksyon ha uma.					
1.2 Produksyon han matibaksi, dagko, mabug-at ngan malaksi tumubo nga nati nga karabaw nga may-ada hitaas nga presyo ha merkado ug nakakahatag hin kadugangan nga ganansya o kita.					
1.3 Kadugangan nga kita pinaagi han pag-gamit han mestizo nga karabaw komo kabulig ha pangontrata han trabaho ha iba nga uma.					

KARUKAYAKNON	SE 5	DE 4	IE 3	GE 2	DgE 1
1.4 Pagdamo han produksyon han gatas nga nagresulta hin kadugangan nga panginabuhi pinaagi ha paghimo han presko nga gatas han karabaw ngadto ha keseyo. 1.5 Pagkamay-ada hin karabaw nga mailob ug matibaksi nga bulig han benepisyaryo ha pagtrabaho ngan nakakaiban han kagarastusan ha uma. 1.6 Kahitaas han kalidad han karne han mestizo nga karabaw nga nagresulta hin paghitaas han presyo han karne ug hinungdan han paghitaas han kita o "income" han benepisyaryo. **2. Pag-uswag han nutrisyon.** 2.1 Tungod han dugang nga kapasidad han karabaw ha produksyon han gatas nga sobra ha panginahanglan han nati, an Benepisyaryo nakakatagamtam ug nakakainom han presko nga gatas han karabaw. 2.2 Tungod han dugang nga kapasidad han karabaw ha produksyon han gatas, an Benepisyaryo nagkamay-ada hin gahum pagdesisyon nga paghimo han presko nga gatas ngadto ha keseyo para ha pankalugaringon nga pagkunsumo o pagbaligya. 2.3 An paghitaas han kita o "income" nakakahatag hin lapasidad ha Benepisyaryo pamalit han panginahanglanon parte han maupay nga pagkaon ug panlawas.					

KARUKAYAKNON	SE 5	DE 4	IE 3	GE 2	DgE 1
3. Igo nga kita ug kagarastusan.					
3.1 Pagpalit hin mga higamit ha pag-uma.					
3.2 Kapasidad hin pagpaeskwela han mga anak.					
3.3 Pagpakaupay han balay o puruy-anan.					
3.4 Kapasidad hin pagpabulong o pagkunsulta ha doctor ngan pagpalit hin medisina kon kinahanglanon.					
3.5 Pagpalit hin mga bag-o nga panapton.					
3.6 Pagpalit hin mga bag-o nga appliances.					
4. Paghatag gahum han katawhan.					
4.1 Pag-atender ha mga pag-aradman han mga parag-uma.					
4.2 Paghibaro han mga teknikal nga kabatiran ug pag-aradman ha pag-ataman ngan pagpadamo han hayop.					
4.3 Pag-uswag han pagtapod ha kalugaringon.					
4.4 Pag-api han mga organisasyon ha komunidad ug mga buruhaton nga makakaupay han katawhan.					

Ika-upat nga parte: Ginkahitapo nga mga problema.

Direksyon: Alayon pagtsek dida han bakante nga lugar han baton nga natukma han imo pagsantop o pag-abat han kabug-aton han mga problema nga ginkahitapo ha pagdumara hine nga Programa. Alayon la pagbasar han imo baton dida han masunod nga kabug-aton.

5 - Sobra hin duro nga Inaabat (SI)

4 - Duro nga Inaabat (DI)

3 - Igo-igo la nga Inaabat (II)

2 - Gutiay la nga Inaabat (GI)

1 - Dire Gin-aabat (DG)

Mga Inaabat nga Problema	SI 5	DI 4	II 3	GI 2	DG 1
1. Padayon nga pagdire han mga Benepisyaryo ha Programa.					
2. Kakulangan o kawaray panpinansya nga suporta tikang han Lokal nga gobyerno (LGU) para han aktibidad o buruhaton kasumpay han pagdumara han Programa.					
3. Magraut ug magkuri nga kalsada rason han kakulangan ha pagsubaybay o pagmonitor han mga tag-implementar han Programa.					
4. Kakulangan sinseridad ug kakomitido han pipira nga tag-implementar han Programa.					
5. Kakulangan o dire sadang nga kahibaruan han benepisyaryo han Programa, ha pagproseso han presko nga gatas han karabaw ngadto han iba nga produkto gawas han keseyo, nga pwede kunta makadugang han kita o "income".					
6. Kakulangan o dire sadang nga kahibaruan han Benepisyaryo han Programa ha pag-ataman ug pagpadamo han karabaw.					

Ikalima nga Parte: Mga nakikita nga kasulbaran o solusyon.

Direksyon: Alayon la pagtsek han kakusgon han imo argumento dida han bakante nga lugar pinaagi han masunod nga kabug-aton.

5 - Mabaskug nga Naabuyon (MN)
4 - Naabuyon (Na)
3 - Igo la nga Naabuyon (IN)
2 - Natipa (Nt)
1 - Mabaskug nga Natipa (MaN)

Nakikita nga kasulbaran / Solusyon	MN 5	Na 4	IN 3	Nt 2	MaN 1
1. Maghimo hin pagpasarang hin mga impormasyon pinaagi ha sinurat, ha radio ug ha mantalaan.					
2. Maghimo hin pagpasarang hin mga impormasyon ha mga barangay, mahiunong han Programa nga Pagpauswag han Mamat han Karabaw.					
3. Maghangyo ha Lokal nga Gobyerno ug Sanggunian Bayan hin suporta o ayuda han Programa.					
4. Pag-establisar hin maupay nga relasyon kaupod an mga tag-implementar han Programa pinaagi hin "regular" nga paghuruhimangraw ug pagmiting.					
5. Pag-establisar ug pagmentinar hin maupay nga relasyon ngadto han iba pa nga nahidadabihan ug may kalabutan nga ahensya han gobyerno, sugad han Philippine Carabao Center ha Leyte State University (PCC at LSU) ug an Department of Agriculture – Regional Field Unit 8 (DA-RFU8) para han padayon nga suporta ug ayuda han Programa.					

DAMO NGA SALAMAT!

Table 23

Extent of Implementation of the Carabao Upgrading Program (CUP) on the Four Program Components on Estrus Synchronization (ES), Artificial Insemination (AI), Pregnancy Diagnosis (PD) and Defluking.

Indicators	Res pon dents	Responses					Total	Mean	Inter pre tation
		FI 5	HI 4	MI 3	PI 2	NI 1			
Estrus synchronization									
1.External signs of estrus	PB	58	112	84	3	11	268	3.76	HI
or heat is determined.	PI	4	3	7	1	0	15	3.67	HI
2.Stage of estrus or heat of									
animal is evaluated through	PB	56	107	95	4	8	269	3.75	HI
mucus discharge.	PI	2	5	5	2	1	15	3.33	MI
3.Single injection of hormone	PB	35	97	91	5	35	260	3.39	MI
to induce heat.	PI	1	2	9	3	0	15	3.07	MI
Total	PB	-	-	-	-	-	-	10.90	-
	PI	-	-	-	-	-	-	10.07	-
Grand Mean	PB	-	-	-	-	-	-	3.63	HI
	PI	-	-	-	-	-	-	3.36	MI
Artificial insemination									
1.Artificial insemination is done	PB	57	96	86	5	26	269	3.58	HI
when heat is observed.	PI	4	4	6	2	0	16	3.63	HI
2. Artificial insemination is done	PB	51	87	86	3	44	270	3.37	MI
after estrus synchronization.	PI	1	5	6	2	0	14	3.36	MI
Total	PB	-	-	-	-	-	-	6.95	-
	PI	-	-	-	-	-	-	6.98	-
Grand Mean	PB	-	-	-	-	-	-	3.48	MI
	PI	-	-	-	-	-	-	3.49	MI

Continuation of Table 23

Indicators	Respondents	Responses FI 5	HI 4	MI 3	PI 2	NI 1	Total	Mean	Interpretation
Pregnancy diagnosis									
1.Careful evaluation of animal's body condition.	PB	52	114	86	4	9	265	3.74	HI
	PI	4	2	9	0	0	16	3.44	MI
2.Evaluation of size and development of mammary glands.	PB	38	117	95	6	17	272	3.57	HI
	PI	3	4	6	2	0	15	3.53	HI
3.Rectal palpation to determine pregnancy.	PB	41	105	94	2	11	253	3.64	HI
	PI	2	4	7	1	0	14	3.50	MI
Total	PB	-	-	-	-	-	-	10.96	-
	PI	-	-	-	-	-	-	10.47	-
Grand Mean	PB	-	-	-	-	-	-	3.65	HI
	PI	-	-	-	-	-	-	3.49	MI
Defluking									
1.Defluking before breeding.	PB	69	111	65	4	21	270	3.75	HI
	PI	4	3	9	0	0	16	3.69	HI
2.Defluking prior to calving.	PB	52	111	71	3	32	269	3.55	HI
	PI	3	4	8	0	0	15	3.67	HI
3.Defluking after calving.	PB	42	116	74	5	30	264	3.55	HI
	PI	3	4	8	0	0	15	3.67	HI
Total	PB	-	-	-	-	-	-	10.85	-
	PI	-	-	-	-	-	-	11.02	-
Grand Mean	PB	-	-	-	-	-	-	3.62	HI
	PI	-	-	-	-	-	-	3.67	HI

LEGEND:

PB - Program Beneficiaries

4.51 – 5.00 Fully Implemented (FI)
3.51 – 4.50 Highly Implemented (HI)
2.51 – 3.50 Moderately Implemented (MI)

PI - Program Implementers

1.51 – 2.50 Poorly Implemented (PI)
1.00 – 1.50 Not Implemented (NI)

Table 24

Effectiveness of the Implementation of the Carabao Upgrading Program (CUP) in Addressing the four Program Concerns on Poverty Alleviation, Nutritional Improvement, Income Equity and Distribution and People Empowerment

Indicators	Respondents	Responses					Total	Mean	Interpretation
		EE 5	HE 4	ME 3	SE 2	NE 1			
Poverty alleviation									
1.Upgraded carabao helps beneficiaries in farm operation and is of great help in production program.	PB	38	68	132	31	4	273	3.38	ME
	PI	6	5	6	0	0	16	3.94	HE
2.Production of vigorous, larger, heavier and fast growing calves with higher market value brings more profit.	PB	56	89	95	21	5	266	3.64	HE
	PI	7	5	4	0	0	16	4.19	HE
3.Additional income is derived through utilization of upgraded carabao as draft animal for contract work.	PB	63	75	100	33	6	272	3.63	HE
	PI	4	6	4	1	1	16	3.69	HE
4.Increased milk production results in additional livelihood through processing of carabao milk to white cheese.	PB	33	69	81	31	46	266	2.98	ME
	PI	2	5	6	1	1	15	3.40	ME
5. Availability of draft animal aids beneficiaries in farming activities and decreases farm expenses.	PB	53	77	106	27	9	272	3.51	HE
	PI	5	4	7	0	0	16	3.88	HE
6.High carcass quality of upgraded carabao result in increased price of carabeef and consequently increased income.	PB	65	85	78	31	8	267	3.63	HE
	PI	4	7	5	0	0	16	3.94	HE
Total	PB	-	-	-	-	-	-	20.77	-
	PI	-	-	-	-	-	-	23.03	-
Grand Mean	PB	-	-	-	-	-	-	3.46	ME
	PI	-	-	-	-	-	-	3.84	HE

Continuation of Table 24

Indicators	Res pon dents	Responses EE 5	HE 4	ME 3	SE 12	NE 1	Total	Mean	Inter pre tation
Nutrional improvement									
1 .Increased milk yield capacity allow carabao to produce additional quantities of milk for human nutrition apart from those necessary to feed their caracalves.	PB	40	80	74	31	44	267	3.18	ME
	PI	2	8	4	1	1	165	3.56	HE
2. Increased milk yield gives farmers' the option to process milk into white cheese for home consumption or for sale.	PB	35	90	68	27	66	266	3.23	ME
	PI	2	7	5	0	2	14	3.93	HE
3. Improved income result in increased purchasing power to meet nutritional needs.	PB	53	75	89	39	9	265	3.47	ME
	PI	2	8	6	0	0	16	3.75	HE
Total	PB	-	-	-	-	-	-	9.87	-
	PI	-	-	-	-	-	-	11.24	-
Grand Total	PB	-	-	-	-	-	-	3.29	ME
	PI	-	-	-	-	-	-	3.75	HE
Income equity and distribution									
1. Purchase of farm implements.	PB	52	75	69	47	15	191	4.59	EE
	PI	2	6	3	4	1	16	3.25	ME
2. Capability to send children to school.	PB	74	68	54	53	11	260	3.54	HE
	PI	4	4	3	4	1	16	3.38	ME
3.Home improvement.	PB	67	68	69	46	19	269	3.44	ME
	PI	2	6	3	4	1	15	3.47	ME
4.Capability to undergo medical check-up and buy medicines when necessary.	PB	70	67	65	46	17	270	3.41	ME
	PI	2	6	2	4	1	15	3.27	ME

Continuation of Table 24

Indicators	Respondents	Responses EE 5	HE 4	ME 3	SE 2	NE 1	Total	Mean	Interpretation
5. Purchase of new clothes.	PB	35	79	80	58	18	269	3.22	ME
	PI	2	5	4	5	0	16	3.25	ME
6. Purchase of new appliances.	PB	33	57	78	52	35	257	2.98	ME
	PI	3	5	4	4	0	16	3.44	ME
Total	PB	-	-	-	-	-	-	21.18	-
	PI	-	-	-	-	-	-	20.05	-
Grand Mean	PB	-	-	-	-	-	-	3.53	HE
	PI	-	-	-	-	-	-	3.34	ME
People empowerment									
1.Attendance to farmers' classes.	PB	69	83	77	35	6	269	3.66	HE
	PI	1	6	8	1	0	16	3.44	ME
2.Learning of technical skills and knowledge on livestock production and management.	PB	71	79	89	24	3	265	3.73	HE
	PI	1	5	8	2	0	16	3.31	ME
3.Improved self confidence.	PB	65	74	95	25	2	263	3.64	HE
	PI	2	3	9	2	0	16	3.31	ME
4.Involvement in communit organization and activities.	PB	70	82	85	28	2	268	3.70	HE
	PI	2	4	8	1	0	15	3.47	ME
Total	PB	-	-	-	-	-	-	14.73	-
	PI	-	-	-	-	-	-	13.53	-
Grand Total	PB	-	-	-	-	-	-	3.68	HE
	PI	-	-	-	-	-	-	3.38	ME

Legend:
PB – Program Beneficiaries PI – Program Implementers

4.51 – 5.00 Extremely Effective (EE) 1.51 – 2.50 Slightly Effective (SE)
3.51 – 4.50 Highly Effective (HE) 1.00 – 1.50 Not effective at all (NE)
2.51 – 3.50 Moderately Effective (ME)

CURRICULUM VITAE

CURRICULUM VITAE

A. PERSONAL INFORMATION

NAME	:	JULIET TAN DAYAP
ADDRESS	:	Salug District, San Francisco Street, Catbalogan, Samar
PLACE OF BIRTH	:	Manila
DATE OF BIRTH	:	July 4, 1959
CIVIL STATUS	:	Single

B. EDUCATIONAL BACKGROUND

ELEMENTARY EDUCATION	: Catbalogan I- Elementary School (1965-1971)
SECONDARY EDUCATION	: Samar National School (1971-1975)
COLLEGE EDUCATION	: University of Eastern Philippines (Oct. '75-1982)
COURSE	: Doctor of Veterinary Medicine

C. ELIGIBILITIES

Veterinarian Licensure Examination	08-1-3/88	Manila
Meat Inspector Examination	12/06/87	Manila
Career Service Professional	12/06/81	Catarman N. Samar

D. PROFESSIONAL EXPERIENCE

1982 – 1989	Livestock Inspector – Bureau of Animal Industry
1989 – 1990	Agricultural Technologist – Department of Agriculture
1990 – 1992	Agriculturist I – Department of Agriculture
1992 – present	Agricultural center chief I – Department of Agriculture (Devolved to Local Government Unit – Samar Province)

E. TRAININGS / SEMINARS ATTENDED

Basic Training Course on Artificial Insemination, Pregnancy Diagnosis and Estrus Synchronization in Buffaloes.
Conducted by: Philippine Carabao Center at Central Luzon State University
Digdig Ranch, Carranglan, Nueva Ecija
August 5, 1997- September 6, 1997

Swine Artificial Insemination Course.
Conducted by: International Training Center on Pig Husbandry
Marauoy, Lipa City, Batangas
March 10, 1997 – March 21, 1997

Local Government Unit - Department of Agrarian Reform (LGU-DAR) Extension Delivery Course.
Conducted by: Department of Agrarian Reform- United Nations Development Programme (DAR-UNDP)
Hotel Maqueda Bay, Catbalogan, Samar
December 12,2000 – December 14, 2000

Seminar – Workshop on Revitalizing the Department of Agriculture – Unified National Artificial Insemination Programme (DA-UNAIP).
Conducted by : Department of Agriculture- Regional Field Unit 8 (DA-RFU 8)
Hotel Alejandro, Tacloban City
November 5, 2003 – November 6, 2003

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