

# **SUMMARY**

## **Evaluation of the project “ Development of People’s Socio-economy and Environment of the Nusa Penida Island” (Bali Province, Indonesia)**

(Implemented by the Daya Pertiwi Foundation  
with Financial support from the EZE Germany)

August, 2004

Barry Aryasa  
Kresno Wiyoso

## Table of Contents

Table of Contents .....	2
1. Introduction.....	3
1.1. Background and Evaluation Objectives.....	3
1.2. Evaluation Methodology.....	3
2. Short Description of the Project Context.....	5
3. Major Objectives.....	6
3.1. Target Groups.....	6
3.2. Project Strategy and Approach.....	7
4. Achievement Objectives.....	8
4.1. The objectives on target group achievable.....	8
4.2. Project objectives leverage.....	9
4.3. Project objectives performance and targets in general	10
5. Assessment of the project achievement.....	11
5.1. Relevance.....	11
5.2. Effectiveness.....	12
5.3. Efficiency.....	13
5.4. Immediate and long term impact.....	15
5.5. Sustainability.....	16
6. Conclusions and recommendations.....	18
6.1. Conclusions.....	18
6.2. Recommendations.....	19

## **1. INTRODUCTION**

### **1.1. BACKGROUND AND EVALUATION OBJECTIVES**

Daya Pertiwi Foundation (Yayasan Daya Pertiwi - YDP) during couple years have some activities in improvement and development program for social and economy people in Nusa Penida Island, Bali Province. The activities have been completed in field mostly oriented to agriculture and livestock development.

This YDP effort accomplished positive results, for the reasons YDP in 1997 intended to apply a project proposal for expanding activities and to be obtained funds by EZE (Evangelische Zentralstelle für Entwicklungshilfe), an NGO institute of Germany. EZE accepted positively the said proposal and in December 1997 approved to allocate fund aid to the Project amounting to 302,833 DM with Project no. 970333 G and Project name: " Development of people's socio-economy and environment of the Nusa Penida island". The Project started in November 1998.

An Evaluation audit have been done by an independent party in consisting of 2 (two) domestic experts were Barry Aryasa and I Wayan Arga and 1 (one ) expatriate expert was Dirk van Esbroeck in the end of Project . Project Recommendation Report stated that the project was an essential and need to be continued.

EZE, currently was change with EZE approved the said recommendation and executed with another fund aid for Phase II.

Phase II program documentations affirmed that at the end of the project period, the program will be re-evaluated. Project period will be from December 2001 to November 2004 with fund aid amounting to 306,775.13 Euro or equivalent to 3,466,558,969 IDR with Project no. 20010320 G.

Project evaluation has been implemented by 2(two) domestic experts in close co-operation with project staff and population involved as the target groups and taking the terms of reference presented in annex I . The field visits completed for three days; a mission calendar is presented in annex 2.

Based on Term of Reference, the evaluation objectives is to value the project development comparing to the objectives, target, and environmental effect, to study possibilities and weakness, including to identify gender issue stated in project proposal . The evaluation also provides major strategy input to the Project Phase III.

### **1.2. EVALUATION METHODOLOGY**

The final evaluation will be completed in 2 (two) stages. In the Stage I needs completion during 5 (five) days for finding data, including Field Data and Project Activity Report during project Phase II ( Dec-2001 to Nov-2004 ). And in Stage II will be a formally Final Report during 10(ten) days period.

On the first day, the Evaluation Team set an evaluation methodology based on Project documentations and Year Evaluation Report Phase II , and a

meeting with YDP Head Office Staffs. Please refer to The Evaluation Methodology draft in annex 3.

A field visit have been completed during 3 (three) days, starting with a meeting with Project Staffs finding administration data and reports. Studying the rural village condition and distance inter villages to point a visiting and planning a field checking to take interview with people members of Self Help Group. Following step was to provide a meeting to the Chief Sub-District of Nusa Penida island and also Chief of Local Animal Husbandry to interview for collecting data.

In the afternoon was organized a meeting with all field staffs to analyze a current / temporary data and evaluating the results.

In visiting to the village – just visit a village that locates a close between one group to another one – also considering to distance to meet with time needed was 3 (three) days period only.

All the Group Leaders and minimum one of group members must attend the meeting. The meeting presented an interview in grouping or in individual of the Group Leaders collecting data for number of cows, pigs, cattle and “cubang” (water reservoir) built and also number of plants to be placed in their land and many things related to the project conditions, including the input contributions to the project.

The current language using was Bahasa Indonesia and some was local language called Bahasa Bali that translated by the field staffs.

In the end of visit, the team rearranged a meeting with all the field staffs to value and summarize some results based on goal criteria evaluation (relevance, efficiency, effectiveness and impact and sustainability). The collected data were discussed for finding same outcome and perception and will be a Project Phase II Achievements. Please find the Summary assessments of both groups presented in annex 4.

A temporary field findings, then, were discussed with YDP Director for giving an input and take a solution in field problems.

In Stage II , the Head of Evaluation Team has a responsible to produce a draft report in Bahasa Indonesia and, if finalized, translated in English.

As mentioned in the previous paragraphs, the evaluation had largely an internal character. It tried to combine both the objective of enhancing the learning process at the level of YDP and the groups it is co-operating with, and assessing as objectively as possible the project performance. Both project staffs, group members and other parties involved co-operated openly with evaluation and were able to look critically at the project performance. The evaluation, therefore, think they succeeded in achieving both objectives in affair way and hope this evaluation will assist all parties concerned in further improving their performance.

## 2. SHORT DESCRIPTION OF THE PROJECT CONTEXT

Nusa Penida is a sub-district that belongs administratively to Klungkung district, Bali province. It comprises three islands: Nusa Penida, Ceningan and Lembongan. The Project is concentrated in Nusa Penida, the biggest island. The sub-district Nusa Penida authorizes to 16 (sixteen) villages (Desa/Kelurahan) with population 47,362 (23,352 man and 24,010 women) per Jun-2004 statistic, area = 202.84 km<sup>2</sup>. In general this area be composed of 2 region. One region lives in the Rural Coastal area have better standard on living compared to the other region lives in a waterless and limestone hillside.

Even Nusa Penida is a part of Bali Province that known in world level tourism, Nusa Penida is significantly far away in development program both of tourism and economy. Via sea transport needs about 30 minutes from Bali Island to Nusa Penida, unfortunately there is no contributing in socio-economy in Bali tourism.

Bali land natural geographic is different condition with Nusa Penida. The Nusa Penida land was dry and hot with rainfalls 800 mm in 42 days only during 7 or 9 months dry season period. In the limestone dry hillside is not possible to build a water-drainage to support plant farming. People must construct a terracing of broken-stones formed against landslide in wet season. Without water resources and reservoir with drainage in the long dry season, water obtains difficulty and people must save rain water as stock during long dry season.

The low standard economy development takes a reason people to move out other region such as to Bali Island or other Indonesia islands.

Economic activity grows in Rural Coastal area since 1998 and agriculture becomes a basic activity in economy sector development. People plant corn, cassava and peanuts. Fishery is also developed for coastal area with majority plant seaweeds.

Before YDP started the development rural village project in local people, the standard economy was low level.

Currently after YDP having a cooperative with EZE (now is so called EZE) to expand socio-economy program in the Phase I, YDP confirms some improvements and increasing people condition such as livestock, perennial crops, fishery, agriculture, home industry, handicraft, and processing of agriculture product.

Nusa Penida is also known as an important cattle breeding area and many cattle are brought to Bali island. The Government has amended a special policy to maintain and develop an original of Bali cows in Nusa Penida island and the island will be as a research center and the other cow variety forbidden coming up.

From time to time the population of Nusa Penida before 1998 people decreased when they transmigrate to Bali or other island but since 1999 total population relatively increased since some people were back home. The reason was the other region problems such security, and economically in Nusa Penida better as an origin island. The Education level of Nusa Penida people was low grade, but at average they are able to read and write. Some people unable speak Bahasa

Indonesia well. In the island there are 2 Senior High Schools, one of them is State School.

Woman -in gender- position in Nusa Penida is almost equal to the Balinese. Balinese people in general and Nusa Penida in specific, welcome with gender status for men and women. Women have an act in the same level with men. Some women work in blue color labor like as mason etc., but the primary responsibility in daily income is still handled by men as a husband. In the Rural Coastal area situation of people is slightly different with the hillside people. This is caused that in Rural Coastal area get some influences from the contemporary people come from other island. Women take a role in economy activities such as a trader and home industry which they control the business.

To consider dry hillside area with stone-terrace with almost constructing naturally, the Evaluator Team have concluded that people in Nusa Penida is basically a strong individual and hard workers.

Fundamental problems in Nusa Penida can describe as follows:

- Limited of a potential local natural resources, where local people are needed.
- High dependency level on short term and often-unreliable economy activities caused lack of economy activities knowledge.
- Waterless in mostly hillside area effected to people to move to other island for temporary when dry season period.
- Low education grade. Not as much of school caused of an educated people are minor

### **3. MAJOR OBJECTIVES**

The project aims procure to increase people income in Nusa Penida island to manage the natural island environments. This project places in strategic development and improvement in people socio-economy.

The outputs to reach the project purpose have been defined as followed:

1. Increased livestock production.
2. Increased number of perennial crops.
3. Improved availability of water.
4. Increased autonomy of the group supported.
5. Increased a technical ability, managerial, and entrepreneurship.
6. Building up an effectiveness relationship between small entrepreneur with big companies, government or private institutions.
7. A positive attitude of government and other key institutions towards the project.
8. Increased quality of YDP's support.

#### **3.1. Target groups**

In majority, people of Nusa Penida are rural poor, especially people who live in the hillside. This Project in specific does not state the detail of target group but in the practice, the agriculture and cattle breeding have been concentrating in hillside area. Activity in the Rural Coastal area is focused in small enterprise development. In the implementation, the project co-operated with self-help group. Selective mechanism in rural village level have been

done by choose the target group. Per group target consists of member who connects with social relationship, honest, and become a good attitude in community. This will be the primary requirement.

The other criteria for cattle breeding for example, they have been planting the forest and fruit trees for greening on implanted land, also to obtain a hole-well for water reservoir system (called "cubang"). And already have gained some experience with cattle breeding. Subsequently, the small-scale enterprises have been trained an administration and management, so that using simple of administrative order.

### **3.2. Project strategy and approach**

Project strategy in general has been made based on project expectations. Thus in this case, the project concentrated on economic sector where Nusa Penida known part of Bali, and the project strategy line will be influenced to the Government policies and purposes who is managed by Bali Governor in Bali. The government is trying to conserve the Bali cattle and accepting to continue the conservation in Nusa Penida island. They assist in technical services, while the Project focuses in the economy sector. The perennial crops provide another strategic opportunities, on the mid-term they can contribute the alleviate Bali's chronic shortage of timber and wood for craftsmen in Bali island. On the other hand by planting a timber is covered on reforestation and erosion control, most of which happens in rainy season.

The "Cubang" building can help the government for supplying clean water in dry season. Water is a primary need in human lives and significantly help economic benefits and also is considered an important factors in ensuring good health for community and animal.

The Pig program for women was a major element of the gender problems. Women are generally appreciated in this participation and usually improve the family economy as well. Pig is an animal that easily in farming system, prospective selling and needed to provide for Balinese Religious Ceremonial.

The socio-economy development approach is another strategy that includes into Savings and Credit system can help people in working capital problems. There are not many banks and other financial institutions operate in Nusa Penida. In addition the small enterprises have an administrative problems in book-keeping and accounts. For these reasons the Project should contribute to the objective of increasing to small-scale enterprises.

#### 4. ACHIEVEMENT OBJECTIVES

##### 4.1. The Objectives on Target Group achievable

The Target Group Table that successfully achieved till July 2004 is shown below:

Table 1

Type of Activity	No of groups	No of members	Men / women
Cattle breeding and fattening	8	119	M
Perennial Crops	8	119	M
Reservoir (Cubang)	12	179	M
Pig breeding	4	50	W
Pig pen	4	50	W
Small Enterprise Development	23	420	7M+16W

The interesting point of the Cow Breeding and Fattening are an ending result of double opportunity. The double opportunity is the Perennial crop and water reservation. As we know that for applying the cow program, the group has to fulfill the requirements. Two of the requirements are to have the obliged plants like Grass and Gamal, and the other are trees, such as fruit and industrial plants. Cubang – for cattle's drink water - then gives to a group that completes the said requirements. The Cubang is constructed in closely surrounding members of the group. It is able to consume for home drinkable water and other purposes accordingly. All members of family use this facility.

Women are shared to manage the breeding pig program, when they can easily control and also help their family in an additional income as the daily activity. In Balinese culture, there is no different between men and women, but still the men are acted to be a house holder and they authorize to get the family income. Please notify that in the mentioned breeding program is often taking care to husband, wife and children. There is, however, the Credit and Savings Program is mostly signed by women for a capital loan. Again, the women have an additional activity and income for the family then giving increasingly status in the family form. This is to answer an issue of gender in rural family campaign.

Currently, the number of Groups selected are located in 7 Rural Villages of 16 Rural Villages in Nusa Penida island. From the said 7 Rural Villages, there are 5 Rural Villages locating in Rural Limestone Highland Area, waterless in Dry Season in 7 months period a year. The other 2 Rural Villages are along Rural Watery Coastal Area.

Based on Sub-District statistic data, population in end of the Year 2003 are amount of 47,362 people with 9,102 Households. The Project program identifies statistically 11.12% of total population reflecting to aim at increasing the economic welfare. The increasing economic welfare also effects indirectly to the other community. It includes in the Animal Vaccination, the

Cubang and the Perennial Crops Program and other uncountable existing programs for Nusa Penida island people.

#### **4.2. Project Objectives Leverage.**

The Project Objectives Leverage can be summarized as follows:

- **Cow Breeding and Fattening**

In the end of July 2004, cows have been distributed to the program =119 with split into 2 bulls for the Fattening and 117 female cows for the Breeding. The cows in total is equal to the number of the group member existing and during the Phase II, they are routinely vaccinated by monthly, including the vitamin supports, the technical guidelines in animal diseases, prevention, cure and knowledge of feeding system. The knowledge of feeding system is described in three stratum system covering firstly with soft of home-grown foods and then hard one, but in the Dry season using the Hay that will meet these needs.

Small Farmers have been in well-understanding stage to manage their animals and zeroing result in this Phase II. They will directly contact to YDP Field Staff if found an animal disease, otherwise animal husbandry officer will visit to recover the treatment.

- **Water Reservoir Building (the Cubang)**

The Cubang has been successfully built as per end of July 2004 = 35 units. It is constructed with measurement in 3.5 x 3.5 x 3.5 m underground. There were 3 units locate in Kutampi village were leakage and outflow caused of earthquake in June 2004. The mentioned Cubang were not being fixed and need to repair sooner when currently effecting to the small farmers to provide water. The water supply at present must be consumed by buying water from external sources in price = Rp 55,000,- per 1000 liter. This cost must be expensed to fulfill for drinking a cow during 2 weeks period.

From this matter, the Cubang is a primary function in daily water consumed for both family of small farmers and cows.

Referring to the Cubang dimension size, they are able to store in rainy season for supplying enough to cover in dry season needs. As per our evaluation in August 2004 we found a half height of the Cubang volume, while the dry season has been running for 4 months period, eventually it uses for 3 or 5 small farmer families.

- **Perennial Crops**

Total distribution for Perennial Crop plants as at July 2004= 6,120 trees are shown for the following: Teak = 3,100, Mango = 1,520, Jackfruit =360, Melinjo =360, and orange =780. The mentioned trees are successfully surviving= 80% due to climate factor (long dry season) and caused of technical skill of the small farmers in how to plant accordingly. The Small Farmers planted = 18,620 Premier Gamal for Cow foods. Fund uses were taken from a revolving fund of Perennial Crops Program.

- **Pig Farming**

Pigs distributed to Small Farmers at the end of July 2004= 50. The Pigs were looking unhealthy and were 3 pigs died. They could cause of long dry period with water under-supplying. They need often wet ground and water, including for their foods. They will be unwell-covered for Rural Highland Area that waterless for Pig Farming in which they still were controllable healthy living in Rural Coastal Area. Pig Farming is not significantly continued for Rural Highland Area.

- **Goat Farming vs. Pig Pen**

Evaluator did not find the Goat Farming when field checking and as per Field Coordinator the Goat Farming was exchanged into building Pig Pens. The Pig Pens have been actually formed in amount of 50 and they were located all in Rural Highland Area. They are constructed by cement bricks and sustain for Small Farmers since pigs are not being walked around and effect to a dirty environmental.

Back to the Goat Farming, eventually the program should be considered for the future, especially for Rural Highland Area when suitable for the Goat one comparing to the Pig one.

- **Small-Scale Enterprises Program Development**

Capital Loan Assistance is the basic tools for Small-Scale Enterprises Development Program. The Capital Loan Assistance (CLA) has been run by expediting and drawn to 23 groups and there are 7 groups that received totally 60,000,000.00 IDR. The CLA uses in Credit and Savings term to cover various businesses stating as Seaweed farming, Small Trading, Fishery, and Farmers. They enable to increase an economy welfare and benefit. Some groups have completed repayment the first CLA and received the second CLA with more value in loan.

### **4.3. Project Objectives Performance and Targets in General**

Project Planning have been designed to meet in proper way, when there are an increasing income for rural community in Nusa Penida island with project existing.

The Project itself could contribute in raising a socio-economy for Nusa Penida rural people.

When we were doing an evaluation, the group members looked enthusiast to support the Project. The Project efforts are being initiated to stimulate the growth in all level of people lives. It could be proven when Evaluator took an interview, then took happily admit by input data. There are, however, some activities of rural people into the program in Seaweeds, Cow Breeding and Fattening, Perennial Crops are significantly established. Currently cow price in market is slightly increased, because farmers can produce fat and healthy cows via Project program. According to Seaweed price that indicated to higher than previous, Farmers maintain the Seaweed in first class quality to sell.

Besides, the Nusa Penida island has been campaigned in an environmental program to the other community by running Perennial Crops Program. The

Perennial Crops Program has changed Rainfall from 3 months period a year to currently 5 months period.

In Animal Husbandry side, farmers consider seriously to be concern with the prevention and cure to their animals. It impacts to an external group of farmers that copying formula for their cow, too. Also there are many program in which handled by other parties or communities using nearly the same program with YDP project program.

Bank Indonesia (Bank Central) Officers visited to see closely and desired to learn YDP activity program. Their visit intended to find possibilities supporting the rural people development for Nusa Penida island. In fact, the YDP project program co-operates with EZE is an important subject

## **5. ASSESSMENT OF THE PROJECT ACHIEVEMENTS**

The assessment of the project achievements which has been achieved by the Project provides in line to Relevance, Effectiveness, Efficiency, Impact and Sustainability.

### **5.1. Relevance**

The Relevancy in this case, means compatible and accomplished the project to help rural people to move toward and to develop in local and national scope. In general aspect, Relevancy of the project is recognized specifically in the Cow Breedings, the Perennial and the Reservoir Supply.

The Cow Breeding and Fattening is a premiere program for Nusa Penida in which the local people have relatively known in veterinary and cow farming become primary skills in rural highland area. As stating previously that Nusa Penida island is a center of Balinese cow veterinary. The mentioned program will be strategically an important point to give added value on people income.

The Cubang Water Reservoir also should potentially apply to water storage and resources for the rural people when water is a primary need of life and in the island when dry season will be hardly found waterless. The Cubang Program will provide enough water to supply any daily activities such as home, farming and veterinary purposes.

Perennial Crops program of planting forest trees is helping to the rural people referring topographical island that structured in limestone and dry. The Perennial could be proven in an additional rainfall and with efforts to look for additional and variety species will add to income for the farmer in future. Wooden and fruit trees would be maintain to plant in long range plan. They are enable to meet prospective a quality woods in stock for building or Balinese wooden craft, and various fruit also will fulfill market needs in Bali and Nusa Penida islands.

Small-scale Enterprises Development Program has facilitated to have a particularly important role to play in the development of employment opportunities and economic progress. The mentioned program helps people of rural coastal area to run other business like fishery, small restaurant, shop and especially seaweeds cultivation. The Seaweeds development is a potential

activity for rural coastal area to consider with seaweeds price and needs. Nusa Penida coastal area is not effect in water pollution, especially in the East coastal area that planted with Green Seaweeds in better quality and price comparing to the West coastal area with the red one. Along coastal side currently are planted with seaweeds.

Pigs Program in rural highland area should be re-evaluated caused to climate unsustainable to this activity. The rural highland area produces unqualified pig with low price. If it is needed the program will be continued in rural coastal area.

Pig Pen program in rural highland area is not showing successful due to waterless in dry season, and caused to environmental problems such as dirty and smell. The mentioned program can exchange to an original program to develop Goat farming. The Goat farming will be relevantly compared with Pig Pen.

## **5.2. Effectiveness**

The Effectiveness is meant that the project is able to achieve the objectives and targets in project planning.

- Actual Cow distribution= 119 compared with target of 180 and shortage of 61 expecting to distribute starting in August 2004. Delay distribution was caused of incomplete requirements in applying the cow program by farmer group. The mentioned group is unable to plant particular trees as per requirements, due to dry season.
- The Cubang construction have been actually completed 35 units of 75 budgeted. The shortage of 40 will be built starting August 2004, since the farmer group be ready to arrange a hole and as well plant the required trees. Some groups are digging holes when Evaluator visited them and they are expected will have completed in August 2004. As per Project Coordinator by an approval from YDP Head Office some fund of the Cubang transferring to the Pig Program to build another Cubang for water supply urgently needed by Pig Farmer in water supply problem.
- Perennial Crops, fruit trees and animal food plant have been distributed= 6,120 crops and fruits, the other Gamal trees= 18.620 with live expectation leveling =80% of forecasting or =20,000 trees of 70% expected one. In the field evaluation the farmer usually owns not enough space to meet with requirements, so that finding some trees plant improper way. Here, the farmer prefers plant some daily needs of vegetables, cassava, corn, beans etc. Some plants of related program were dying.
- Pigs were distributed in amount of 50 in weight less than 50kg compared with 75 pigs in ideal weight of 50kg. Based on information from Field Staff and the Project Coordinator the 25 pigs will completely distribute during September 2004. The problem of distribution was the dry season climate not supporting to prevent and cure the pigs that required too much water. As above mentioned that Pig farmers are being compensated with the Cubang.

- Fund for 75 goats was transferred into Pig Pen Program. The Goat farming is not familiar activity yet for people in Nusa Penida. In fact Pig Pen were built in total =50. The shortage is being done in August 2004.
- Seaweeds farming is surely achieved by 50% of small-businessmen who enable to increase the seaweeds product quality from 2<sup>nd</sup> class to 1<sup>st</sup> class.
- The Key-Actors of Local authority, especially Sub-District, Villages, Sub-Villages Officers and also Governmental Officers were mostly more changing. They are supporting Group like a vaccination from Animal Husbandry Department, a Technical training of Fishery Department and Bank Indonesia as well from Villages are giving any official issues information.
- Seaweeds farmer have been promoting seaweeds to Denpasar, Bali island. The seaweeds farmer is expanding their product and contacting to the relevant actor to sell their product.
- Technical and managerial abilities of entrepreneurs are shown up by a neat recording and keeping of a financial, administrative and other report books.
- YDP project staffs regularly monitor monthly in one to field of self-evaluation of the project, but the farmer group is often visit Site Office to ask any problem in field at least twice a week. This indicating that the businessmen intend to frequently contact with YDP, so that the YDP existing is needed.

### 5.3. Efficiency

The Efficiency here is defined that as a Project is capable to maximize local resources and optimize a positive impact, and controlling the project cost.

In general, this project has scoped in high level efficiency as stated for the followings:

- **Cattle Breeding and Fattening** uses local cow (locally name "Bali Cow") in practically so efficient, because an origin cow could buy by local purchase not necessary to request from outside Nusa Penida island. In revolving system farmer group member are able possibility own cow with no spending money. Cow could help working in field and to breed in plant season. Monitoring by Group Leader and YDP Project Staff will quickly handle. Farmers are responsible to prevent and cure cow with always send their cows for vaccination period in which Evaluator team watched directly this condition when evaluating time.

Prevention and cure of the said cow program is a scheme of Project Operating organized by Government Officers, Farmers and YDP Site Staff in periodically to produce a good quality cattle.

- **Water Reservoir (the Cubang)**, before having the Cubang, rural group members must carry water in 5 km distance to get one big pot. The Cubang provides for daily family needs and their cattle as clean water without cash buying and heavy carry too far away. It is constructed by community self-help and is expensed by cost reduction. Project via YDP should provide raw material as 3 trucks of sand, 30 packs of cement. Water over-consumed production is sold to other rural people needing and the income on it being managed by the rural group into Credit and Savings program. The Cubang system for water supplying and reserved is a perfectly option and an efficient enough to introduce a rural technology to rural people in Nusa Penida island.
- **Pig in Breeding and Fattening** is an efficient enough to solve rural low socio-economical level to own Pig. But three pigs died caused lack of water. During evaluation the pigs looked very thin and pig pen is dirty.
- **Perennial Crops** includes in requirement for rural group member received Cow assistance. Selected program in an efficiency project cost with producing a self-foresteing is the Perennial Crops. It gives firstly an animal foods then reprocessing soil and fruits production having selling point to self-help for home economical income continuity. Also from wood production in long term is expected to be sold locally or to Bali island.
- **Capital Loan Assistance** for rural group members will avoid from local moneylender. It could develop and expand the said member in business, they operate and therefore in a much better position to guide its business operation. They are in charged by 1% per month cost of Developing. Repayment of loan installment has been organized properly and done in transparency, in which there is no list of non-collectible account problem accordingly.
- **Internal Project Organization on Site Office** is sufficient enough to control project operation. The Site Office is furnished by regular simply office building and equipment, but able to serve an administrative site staff to develop revolving group. It operates motor- cycle to mobilize the site staff in efficient point of project development.

#### 5.4. Immediate and long-term impact

Immediate impact is defined as the immediate tangible and observable improvement or change in people's lives, which have been brought about as a direct result of the project activities.

Long-term impact concern the long-term and sustainable changes brought about by a development project, this impact can either be anticipated in relation to the project's objectives or unanticipated.

In general, the project has positively impact consideration.

The immediate impact covering people benefits are:

- Rural people are realized that, however, is true to follow a program in the vaccination, prevention and cure. It is proven with presence of group revolving farmer and other farmer are attending and consulting their cattle in proper time as per schedule of the vaccination.
- Increasing in Cow ownership, perennial crops, the Cubang  
Cow ownership is an illusion for mostly rural poor farmers before the project being existed, but at present the rural poor farmers have a chance to get a cow without possibility selling their other belongings.

In Perennial Crops the people in short term feel much greenly better environmental surrounding their village comparing with previously when they were living in dry rural area also to influence in rainy season much longer 3 months than before.

The Cubang aspect is encouraging people to live more easier than before when they were carrying water for 3 km away to get two jerry cans or were buying 1000 liter costing to 55,000,00 IDR.

- Capability in technical knowledge in cow prevention including techniques to provide animal feeding as well record keeping of administrative skill. Currently the farmers regularly understand about animal diseases in which by seeing its symptom they could quickly report it to YDP Site Staff or visit to an animal husbandry facilitator services. The farmer group leader responsible to entry a record keeping and a report book both for administrative and accounting.
- Government Program supports.  
The Government Program is like the Bali Cow Breeding centralized in Nusa Penida island area is supported by YDP project and inter-linking it by developed the program together. The Government facilitates technical services only.

Educational sector is the other Government Program funded by Central Bank built a school in the capital town of sub-district area and YDP assisting in facility. In this sector rural people in Nusa Penida is well-supporting, because of their increasing income, the young people grows well-educated.

Public Health of rural people in Nusa Penida is increasing well, it is an aspect of good enough to provide a water in rural villages. Previously people probably did not wash the body once a day routinely but now at least one routinely washed their body.

- People realized in Perennial Crops and Prevention and Cure of cattle are in proper order. With their realization people will maintain their plant, because their plant could be used as animal foods and in future their plant producing wooden potentially to sell. In Perennial Crops people look after their cows in properly caring and proven to increasing the weight accordingly.
- People characteristic have been changed to imitate the revolving group people characteristic. Common people that are followed the project program started copying positively the revolving group characteristic.

Then arising new revolving group are self-managed. People generally realized to keep on continuing the clean water and Perennial Crops.

Long-term impact considers:

- An increasingly income of the revolving cattle farmers, the businessmen, and the farmers. In the future could be surely the revolving group increased, caused of the additional cows their owned and from wooden planted and fruits harvesting season.
- Perennial Crops will be relevantly developed in Tourism Development. In the future if the Perennial Crops succeed for entirely Nusa Penida island will be a Tourism target visiting point, rather than Bali. Currently, land in the rural coastal area and the coastal highland-side sea view mostly have been sold to outsider-estate. The Nusa Penida island offers a natural beauty exotically resources, with glossy sea water, beauty sea-fish and other bio-ecosystem. Topographically highland valley is very interesting and other strong point that unrealized by common people is a beautiful natural limestone terracing valley. However there is a dry condition area and waterless in mostly area in Nusa Penida island.

The Perennial Crops program will be a basic program to support Nusa Penida island and its communities for the Tourism Target Visiting Point and from it then expected to make wealthy communities for the future.

- An increasing level of welfare and socio-economy benefits to communities will be in order after near-year sometime.
- The changing process of empowering attitude and way-of-life to act to a positive and a productive manner in communities.
- In this Nusa Penida Development Project, rural farmers discovered that their positively attitudes to run program. The positive attitude is an effective to provide any live needs. It could be performed in productive manner. The fact, that the productive manner is an effective to other rural communities that truly see the revolving group farmers of YDP program is improved in social and economic level. The other rural communities must do at the same way- positive and productive-to get better lives.

## **5.5. Sustainability**

This means that the continuation is stating that the Project is potentially developed, maintained and created a positive long term phase.

In the period of evaluation the project activities can be summarized:

- Cattle Breeding and Fattening Program has been sustained in good order. Many factors support this statement that Nusa Penida island is a suitable location for the mentioned program and it is covered by continuing to technical and medicinal services from animal husbandry officer services. No one seems to worry about how and where to market the cows. They can sell cows anytime and anywhere. The only problem seems to be that

the cows eventually would be sold to a local private-badly-broker or middleman (the Tengkulak ) in low price. To avoid it, the government should be involved to facilitate the revolving farmers group to sell directly cows to buyer via an official trader who is assigned by local officers or the farmers group.

The Revolving Cattle program controlled by YDP is a useful continuation. A calf sent to YDP then transferable to a new revolving farmer, and so the continuation of processing to cover all rural communities at the end in the revolving program. The current mentioned group should sustain to guide to the new revolving group.

- The Cubang System is a system for clean water supply with a low technology system in which the said system enable to be built by a rural low education people.

The weakness system can be described as follows:

- The Cubang is built and located in land of one member of the farmer group member and consumed and supplied for them. Recently there is no conflict in water consumption and belongings intra farmer, but in progress this case should be assured in ownership on the Cubang completing with an official statement
  - The Cubang system is able to combine with a water-pump with pipelines in which the Cubang technology become more intense also more efficient.
- Continuation of the Perennial Crops program has an opportunity to be expanded. In view of that the crop wood demands raise from Bali, Lombok, Java island. Additional tree species that are suitable to be planted in Nusa Penida island should be enlarged. As a result, site staff should control selling of immature woods when in high demands and high market price. The selling of immature woods will affect the Perennial Crops Program.
  - Pig program continuation for the rural highland area, at now, have negative proven to intensify, hence, there is a possibility not to continue on. The problem is caused of consider to Pig health, regardless 3 pigs was die. Women are very enthusiasm to look after their pigs, however, water is limited in the dry season. When evaluation made, the evaluator found 2 years age Pig weighted only in 40 kg – non-economical .
  - Pig Pen presumes in low level continuation. The Pig Pen – in the dry season with waterless- produces a bad odor and dirty in which took unfitted Pig. Accordingly the funds will return back to the original program that was Goat Program. The Goat program looks more sustainable compared to Pig Pen, but rural people in Nusa Penida island are not familiar enough to feasibly in the Goat Program, so it is a challenge for Site Staff of YDP to convince them that it rise their income in the future.
  - The Revolving Farmer group continuation based on how to create various activities to join up. As a result, every member feels reliable to the group.

To achieve this, Group leader should be obtained in supervisory skill training and could stimulate new idea for their member.

- The Development for Small-Scale Enterprises in Credit and Savings pattern has been confidently continued on. In the view point the pattern is improving for a rural credit and help them to create new small businesses in long term such as rural agro-technology, wooden handicraft, rural coastal and ocean-technology.

## **6. CONCLUSIONS AND RECOMMENDATIONS**

### **6.1. CONCLUSIONS**

Project evaluation "Development of People's Socio-economy and Environment of the Nusa Penida Island" has been done during August 2004 and in general could conclude to see the Project Task

Project evaluation result in general is positive. The strength points of project can be described as follows:

- The project is useful and reliable enough to accomplish in its operation, that factually intensifying in cow ownership, pig, perennial crops, water reservoir, and developing knowledge for the rural farmers referring to prevention and cure for cows and pig in proper order as well attempting to keep up an added value for local product of Nusa Penida.
- Achievement of the revolving group is in high level potentiality to improve in continuity on, and for the next 3 years, most of the groups will self-help to survive. In facts, they have enable to manage all aspect of their activities and non-dependable to other institutes.
- The success of this project is interesting to get attention from other institutes, therefore they are intending to join with YDP, such as the Central Bank. The Bank in operating for building on SD Batununggul (elementary school) asking YDP to facilitate their 7 class-rooms school building project completed in August 2004. Besides, they also plan to join operation with YDP in Nusa Penida island development by using the model of farmers community development as YDP operated.
- The aspect of the project benefits for the group members have reflected to other community, subsequently outsider of the group to duplicate the developing of the said revolving group. Besides, stimulates other program similar with YDP program for target community from government or other parties.
- This project has the beneficiary is supported by the key-actors such as government, public services, other third parties enable to work together to develop the socio-economy of Nusa Penida people.

The weakness of the Project:

- Project activities are not able to increase earnings for the rural income in short term. Many heavy activities identified and operated, thus a building up only for the medium and long term earnings.

## **6.2. RECOMMENDATIONS**

### **General recommendations**

- YDP involvement in Nusa Penida prospect is still fully existing. YDP should continue to involve in development to socio-economy of community of Nusa Penida to the different reasons. This need to plan in the creating sustainable development patterns and concepts according to the high-level of poverty. Indeed, YDP should use the knowledge of sustainable development of trust and benefits, therefore, the priority of both local community and government institution.
- By improving the knowledge and skill of site staff with an additional various topics of training frequently relating to project as a job training and an comparative study. Because site staff members are hired from local people.
- The SED program, in the next step needs to set up a comparative study for the target group in order to improve their vision and innovation to see a real market. It makes them having an attempt in local natural resources in Nusa Penida for covering global market.
- In the future YDP needs to provide an institute of marketing prospectively assisting the participant group to distribute their product in marketing process.

### **Specific recommendations.**

- Cattle breeding and fattening should be certainly carried on, because many people need to join the program. Cow is a basic activity of Nusa Penida community, furthermore, the government decides that Nusa Penida is a center of Bali cow breeding and fattening. Beef demand in Indonesia is too high and still importing from other countries. The cattle need to be improved in Nusa Penida and be a culture in local community.
- Based on analysis, the fattening is preferred in benefits rather than the breeding which will recover in long term. For the next phase the fattening program should be suggested and it needs an effort of site staffs to convince people of the benefits of the fattening. This should provide enough water and animal foods to cover the basic requirements during period year.
- Pig farming, if expecting to be continued on need to be recommended in rural coastal area operation which is enough water provided, when the

pigs necessitate lot of water. In rural highland area the pig farming needs to re-evaluate, since its analysis is non-economical way. The Pig farming should potentially be developed in which it produces pork for self-consumed of Nusa Penida and for Bali request-purchased. It is a part of Balinese ritual ceremonial supplies. Also it is an additional activity of Nusa Penida women to participate for increasing of socio-economy of Nusa Penida communities.

- To replace on pig farming for rural highland area is required to consider a Javanese Goat Farming. The said farming needs a pilot project on it and suitable to develop basically as a topography and climate. Also it is easier prevention and sustainable in breeding comparing than cow farming in which it is more aggressively benefits, especially in economical side of the communities. The primary handicap is that Nusa Penida communities is not commonly yet doing the goat farming, but it should be recovered by site staff and co-operated with sub-district animal husbandry services to convince communities that it will be benefits.
- Perennial Crops need to continue, when has been proven that by the Perennial Crops will affect to an additional rainfall and besides, it expectations to have enough wood and fruits physical stock in the future to raise the family earnings. It would rather better be concentrated to look for additional species that are appropriate to be planted and feasible properly price in market. "Waru" trees might be having an added-value in out-looking for Nusa Penida. Leaf of the "Waru" trees is able to consume for animal foods and handicraft, in which its wood is used for wooden-craft and wood charcoal. With referencing to land structure in Nusa Penida area, Jambu Mete (cashew nut) should be prospect-fully developed in which is commonly favored with its price is considerably high point. Recently it is regularly as export commodity. In Java island it is usually planted in dry (arid) and waterless area as equal with Nusa Penida island land. Bamboo species need to study to develop because in high demand in Bali and have expectations to the both wooden-craft and building construction in a customs ceremonial. For all of those trees mentioned above need technically guidance in planting and caring them.
- For the process of sea products, agriculture and Perennial Crops need to be researched and identified as an activity in Nusa Penida, therefore it is giving more benefits and increasing economy for Nusa Penida communities. This activity will be concentrated suitably for women and be home industry.
- The SED (Small Enterprise Development) of rural coastal area need empowering to open a home industry and new businesses associated with the future requirements. An improvement in training and skill of knowledge in handicraft stuffs making with an advantage of local human resources, especially women can be strengthened on its program.