

# *Model of Sustainable Food Houses Region Evaluation (Case of the Bawean Islands - East Java)*

Adang Warya, Gunawan, Yoyon Haryanto

Ministry of Agriculture Indonesia



**Abstract** – The concept of Model of Sustainable Food Houses Region (Model Kawasan Rumah Pangan Lestari/MKRPL) was launched because households as the smallest form of society are very strategic as targets in every effort to increase food self-sufficiency to the national level. Therefore, the implementation paradigm in order to run well and smoothly in the field, among others: is planned and carried out in participatory manner, socialized in an informative and communicative manner, and supported in an integrated and comprehensive manner. The aim of this study was to assess the MKRPL program and improve the components of the program in terms of the context, input, process, and product components in Bawean Islands, East Java. The results of the evaluation with context, input, process and product components are generated in the MKRPL program. The Bawean Islands of East Java are running smoothly and are successful in achieving their planned goals. This is proved by the significant impact both on the community that is increasing the knowledge, skills and attitudes of the community towards the optimization of the yard environment as well as having positive impact on the private open space (yard) and its surroundings to fulfill food needs and nutrition requirements of the family based on local resources, environmentally friendly, and sustainable in one area.

**Keywords** – CIPP, Model Evaluation, Sustainable Food House Area.

## I. INTRODUCTION

Food is basic human need, ranging from infants, children, adolescents, adults and elderly. The function of food is improving the metabolism of human body in order to always beraktivitas in everyday life. As long as humans live, food is still needed for consumption. Demand of food will continue to rise in line with increasing population growth. Normatively the main source of food supply must be self-produced up to the household level. To meet the food need for the Indonesian population, the food development strategy must be directed towards potency of local food resources based. In accord with this, then in the realization of Perpres No. 22 of 2009 concerning Policy for Diversification Acceleration of Food Consumption Based on Local Resource, among others, can be achieved through the concept application of yard use in all urban and rural areas throughout the country.

Development of food security is national priority in development plans focused on increasing food availability, strengthening food distribution, accelerating food

diversification in accordance with regional characteristics. The food security implementation development program was carried out by taking the food security subsystem into account, among others, seeking to increase food production and availability and improve the quality of public consumption. Food security concept is always synonymous with measures of food independence, namely the fulfillment of food needs independently by empowering the existing human resource, social and economic. This food self-sufficiency will have an impact on the improvement of social and economic life of farming communities. Food independence can only be accomplished if the development is carried out on the basis of active participation of the community itself as a form of awareness to build reliable food security.

Referring to the explanation above, it is appropriate that Model of Sustainable Food Houses Region (MKRPL) concept was launched, because households as the smallest form of society are very strategic as targets in every effort to increase food independence to the national level. Therefore, the implementation paradigm in order to run well and

smoothly in the field, among others: is planned and carried out in a participatory manner, socialized in an informative and communicative manner, and supported in an integrated and comprehensive manner.

Particularly, in archipelago area the need for food is very important. As in Bawean Island, which sometimes relies on food consumption from Java. Moreover, at certain times the weather is less supportive, resulting in the supply from Java stalled. At times like this the ability to produce food itself is desirable. Based on this, the aim of this study was to analyze extension program of Model of Sustainable Food Houses Region (MKRPL) implemented in Bawean Islands of East Java.

## II. RESEARCH APPROACH

### A. Theory Approach of Extension Program Evaluation

Van den Ban and Hawkins (1999) suggested that evaluation is a management tool oriented on action and process. The information collected is analyzed, thus relevance as well as effect and its consequences are determined systematically and objectively as possible. This data is used to improve current and future activities such as planning, programming, decision making and program implementation to achieve more effective counseling policies. The data includes determining the assessment of the effectiveness of activities compared to the resources used. Evaluation is very important component of the planning process. Although, it seems to be the last stage in the planning process, evaluation takes place throughout the program planning activities (Valera et al 1987).

The purpose of the evaluation will determine the data that must be collected to evaluate extension programs. There are two types of evaluation: formative evaluation collecting information for the development of effective extension programs, and summative evaluations measuring the outcome of a program in order to decide whether the program will be continued, expanded or minimized. The data collected can be in the form of quantitative data or qualitative data. Quantitative data is useful for measuring changes that occur due to extension programs, while qualitative data provide information on the reasons why extension agencies and farmers take certain actions.

According to the Yayasan Pengembangan Sinar Tani (2001), evaluation is a reassessment of three things, namely:

#### 1. Evaluation of the program.

If there are abnormalities in program implementation and the results, it needs to be reviewed whether the

program's planning procedures are correct or not. The steps are:

- a. Determine whether the goal to be achieved is reasonable (realistic) or grandiose (idealist), tangible or intangible (abstract).
- b. Evaluate the necessary extension materials (lessons).
- c. Assess learning experiences prepared for clients.
- d. Check the list of people who are planned to receive subject material or information material through a particular learning experience.
- e. Assess planned changes in behavior.

#### 2. Evaluation of the implementation of the program.

If the results are not as expected, whether the implementation is in accordance with the predetermined plan, if not according to why and how to overcome them. Evidence is needed by observing skills improvement, concepts understanding improvement, the improvement of problem-solving abilities, changing attitudes, appreciating different things, changing values and interests, increasing knowledge and applying new practices.

#### 3. Evaluation of the results.

To what extent the stated goals can be achieved. If the purpose cannot be achieved what the cause is.

Evaluation activities should observe the evaluation principle (Mardikanto 2009):

- Evaluation activities must be an integral part that is inseparable from program planning activities.
- Each evaluation must meet the requirements: objective (based on facts), using standardized guidelines, using suitable and accurate data collection methods, using appropriate (valid, valid) and reliable measurement tools.
- Use different measuring instruments to measure different evaluation objectives.
- Evaluation expressed in the form of quantitative data and qualitative descriptions.
- Evaluation should be effective and efficient.

### B. CIPP Evaluation Model

Valera et al (1987) suggested that the CIPP evaluation model covers a variety of activities. C stands for context (context), I for input (input), P for process (process) and P

for product or impact (product or impact). Further explained as follows:

1. Context evaluation

Used to describe the environment, identify and assess needs, and describe program accountability to fulfill the needs. It provides information on how to determine a program, target relationships with final deliberation and goal relationships with problem solving.

2. Input evaluation

Assess the capability system, available input strategies and methods for implementing the strategy. This is the type of evaluation that provides information to help determine whether outside assistance is needed to achieve goals and objectives, whether the strategy will be employed and whether procedures are needed to implement the chosen strategy.

3. Process evaluation

Used to detect or predict damage in procedures or management during the implementation of the steps from the beginning to the end of the feedback periodically. It assesses the leader or management of the program, learning material methods and other aspects related to learning activities implementation.

4. Product or impact evaluation

The purpose of product evaluation is to connect results with objectives, context/circumstances, inputs and processes to measure and translate the results. The product or evaluation impact provides information to determine whether it will continue, limit or end the learning program. This type of evaluation can be used to determine learning outcomes and project achievements as a result of learning.

**C. Sustainable Food Houses Region (KRPL)**

Model of Sustainable Food Houses Region (MKRPL) is concept of growing and utilizing the yard to meet the needs of family food and nutrition in a diversified manner based on local resources, environmentally friendly, and sustainable in one area. The purpose of M-KRPL is to fulfill food and nutrition needs of family, reduce household expenses, increase family income, and improve welfare. M-KRPL is actually not new in society, because the practices of planting on a limited scale (in pots) and many types of plants (plants diversity) have long been run by rural and urban communities. It's just that the pattern and the system is still executed by individual household work and have not

considered the aspects of food and nutrition fulfillment and sustainability.

Yard-based programs have been developed since long time ago, but so far no programs have been found to be widely successful. In relation to the extent of the impact of open private space (yard) utilization, it is suspected that there have not been many studies that are explicit and quantitative, for example seeing the role of the yard for food production or family income. Most of the studies only stated about the benefits and contributions of yard qualitatively. One of the most important benefits of yard function is to provide food and family nutrition by planting crops in an effort to increase family food diversity (Novitasari, 2011).

The development of M-KRPL has short-term and long-term goals. Goals in the short term are: (1) Meet the needs of food and nutrition of families and communities through optimization of sustainable use of the yard; (2) Improving the ability of families and communities in the utilization of yards in urban and rural areas for the cultivation of food crops, fruits, vegetables and family medicinal plants (toga), raising livestock and fish, processing its results and processing household waste into compost; (3) developing seed sources to maintain the sustainable use of the yard and preserving local crops in the future; (4) Developing productive family economic activities so as to improve family welfare and create clean and healthy green environment independently. Long-term goals include: (1) family food independence; (2) Food diversification for the future; (3) Food sustainability for the future; and (4) Improving the welfare of families and communities (IAARD, 2011).

The KRPL program policy takes the regional approach and sustainability into account. Through regional approach that is concentrated in one administrative area (neighborhood association, hamlet, village) can be carried out by better service and guidance. Thus expected to improve efficiency and productivity of farming so as to provide economic benefits for the community. Pezzey (1992) in Saptana (2013) observes sustainability aspects or from its static and dynamic aspects: (1) Static sustainability is defined as the utilising of renewable natural resources with constant rate of technology; and (2) Dynamic sustainability is defined as the utilising of non-renewable resources with level of technology that is constantly changing. According to Heal (1998), the concept of sustainability can be seen from two dimensions, namely: (1) time dimension because sustainability is nothing else about what will happen in the future; and (2) the interaction

dimension between economic systems as well as natural and environmental resource systems.

#### D. Implementation Method of Evaluation Study

Implementation of evaluation study of MKRPL Program using CIPP evaluation model. The things observed in the implementation of this evaluation activity are the

components of context, input, process and product of the MKRPL program. Indicators of each component are as follows:

Table 1. Program Components of MKRPL and Indicators

| Component      | Indicator                                                                                           | Operational Definition                                                                                                       |
|----------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| <i>Context</i> | 1. Relevance to the needs of the community<br>2. The relevance of the program                       | Suitability of the program with the problems and needs of the community related to the optimization of the use of the yard.  |
| <i>Input</i>   | 1. Human resources<br>2. Facilities and infrastructure<br>3. Companion characteristics<br>4. Fund   | Resource Funds such as community, companion extension, infrastructure and funds to support MKRPL activities.                 |
| <i>Process</i> | 1. Socialization<br>2. Assistance<br>3. Community participation<br>4. Implementation of the program | MKRPL socialization activities, field assistance, community participation and implementation of activities.                  |
| <i>Product</i> | 1. Increased knowledge, skills, attitude<br>2. Impact of the program                                | The effectiveness of the MKRPL program in enhancing knowledge, skills, attitudes and impacts on the surrounding environment. |

The aim of this study was to evaluate the MKRPL program and improve the program components in terms of the context, input, process, and product components in the Bawean Islands, East Java. This evaluation is a summative evaluation, which is an evaluation carried out after the program is implemented using CIPP model analysis program (context, input, process and product) which is confirmed by the things observed (components) of the MKRPL program. Data or information in the form of components and indicators such as context, input, process and product from MKRPL program obtained from the analysis of the year-end report of MKRPL of Bawean Islands by BPTP East Java and MKRPL mapping assessment questionnaire.

### III. RESULTS AND DISCUSSION

#### A. Context Evaluation

Used to describe the environment, identify and assess needs, and describe the program's accountability to fulfill

the needs. It provides information on how to determine a program, target relationships with final deliberation and goal relationships with problem solving.

#### B. Relevancy to community needs

Based on the results of Rapid Rural Appraisal (RRA) in the year-end report of MKRPL of Bawean Islands can be explained as follows:

- In general, the income of the Gunungteguh Village people in the Bawean Islands is highly dependent on income as Indonesian Workers (TKI) abroad (Singapore and Malaysia)
- The majority of women's groups or mothers become housewives because husband is working overseas.
- Requires productive activities, especially women's groups / housewives to support family income.

Based on the description of community needs, it is in line with the objectives of MKRPL program activities. The target of the program is a group of women farmers or members of PKK Pokja 3 who handle environmental problems. Therefore, the need for productive activities from women farmer groups or PKK members can be fulfilled through MKRPL program activities. The formation of KRPL group and KBD manager is also expected to increase the cohesiveness of Gunungteguh Village community.

### **C. Program relevance with problems**

Based on Rapid Rural Appraisal (RRA) results in the year-end report of MKRPL of Bawean Islands the problem can be explained as follows:

- a. The basic needs of Bawean Islands, particularly vegetables, depend on supply from Java.
- b. Many yards are not well utilized.
- c. Skills in vegetable cultivation are still lacking.
- d. The production of garden crops such as mango, breadfruit, coconut is abundant so it requires post-harvest handling.

Based on the problems description faced by Gunungteguh Village community, Bawean Islands, those are very relevant to the program MKRPL. The MRPL program can solve several problems encountered through several MKRPL program activities. Basically, MKRPL program is land use activity of the yard to be productive land through planting vegetable crops, tuber plants and integrating with the management of livestock/fish to meet the family's nutritional adequacy and can increase income. The problem of lack of skills in cultivation and post-harvest handling can be solved through training on vegetable cultivation and post-harvest handling.

### **D. Input Evaluation**

Assess the capability system, available input strategies and methods for implementing the strategy. This is the type of evaluation that provides information to help determine whether outside assistance is needed to achieve goals and objectives, whether the strategy will be employed and whether procedures are needed to implement the chosen strategy.

### **E. Human Resources**

At the beginning of the program socialized, 40 registered members with details of 20 people from Teguh Hamlet and 20 people from Gunungmenur Hamlet. Until the half-year program progressed after socialization, MKRPL applicants

became 85 people with details of 50 people from Gunungmenur and 35 people from Teguh or an increase of around 112.5%. MKRPL development in Gunungteguh Village is supported by village government policy by requiring village units to create pilot project in each Hamlet.

Based on the results of analysis on MKRPL year report of Bawean Islands by East Java AIAT and MKRPL mapping assessment questionnaire, it is seen that human resources involved in the MKRPL program understand the purpose and objectives of MKRPL program quite well. This can be proved by the increase in the number of MKRPL applicants from 40 people to 85 people with an average number of types of plants planted by households applying more than eight types of plants.

### **F. Facilities and infrastructure**

Supporting facilities and infrastructure in this case are a) availability of extension media including posters, books, leaflets about vegetable crop cultivation; b) land; c) planting media include soil, manure, husks, polybags; d) seeds; e) equipment includes seedlings nursery, seedbad, hoe, hose, etc. Based on the results of the analysis on MKRPL year-end report of Bawean Islands by BPTP East Java MKRPL mapping assessment questionnaire, it was seen that the facilities and infrastructure of the MKRPL program were in the sufficient category. Only village seedlings garden that should belong to the village, in reality are still owned by individuals.

The facilities and infrastructure are not only from BPTP East Java as MKRPL program companion, but also self-help from the local community. The community consciously contributes to facilities and facilities provision to support the implementation of MKRPL activities in Gunungteguh Village, Bawean Islands.

### **G. Characteristics of companion**

The companion of MKRPL program in this case is a) BPTP East Java Researchers/Extension Officers; b) Field Extension Officers (Petugas Penyuluh Lapang/PPL) in Sangkapura District; c) Sub-district Agriculture Officer (Mantri Tani) of Sangkapura District. The assistance of MKRPL program is carried out periodically by East Java BPTP Researchers/Extension Officers based on the needs in the field. This is constrained by the uncertain condition of ship schedules due to the big waves. While routine assistance by Field Extension Officers (PPL) in Sangkapura District and Sub-district Agriculture Officer (Mantri Tani) of Sangkapura District. In addition to officers from BPTP and PPL who assist, there are also influential factors in the

mentoring process, namely the village leader and his apparatus or the so-called local champion.

The companion characteristics in MKRPL program observed were able to understand the needs of MKRPL program implementers, solve problems, be friendly and fun, and be able to motivate and communicate. This can be seen from the mentoring process of socialization, Rapid Rural Appraisal (RRA), extension, training, implementation and evaluation in the field.

#### **H. Fund**

MKRPL program funds come from List of The Budget Use (Daftar Isian Penggunaan Anggaran/DIPA) BPTP East

#### **I. Process Evaluation**

Used to detect or predict damage in procedures or management during the implementation of the steps from the beginning to the end of the feedback periodically. It assesses the leader or management of the program, learning material methods and other aspects related to learning activities implementation.

#### **J. Coordination and Socialization**

This activity begins with coordination carried out internally and externally. Internal coordination is preparatory, including: creating RODHP, drafting RAB along with technical explanations for the implementation of activities and internal coordination at the research centre level. External coordination is carried out at the district, sub-district and village level. Coordination, communication and dissemination of MKRPL program at the district level were carried out with related agencies in the district, among others, with Gresik District Food Security Office (Kantor Ketahanan Pangan/KKP), the Gresik District Agriculture Service and Gresik District Agricultural Extension Coordination Agency (Badan Koordinasi Penyuluhan Pertanian Perkebunan Perikanan dan Kehutanan/BP4K). Coordination at the sub-district level was carried out with sub-district government staff and Agricultural Extension Center (Balai Penyuluhan Pertanian/BPP) of Sangkapura District, Gresik District.

Based on the results of coordination, communication with various parties, it was decided that the location of MKRPL program activities was: Gunungteguh Village, Sangkapura District. After selecting the MKRPL location, then socialization was carried out. The socialization aims to convey the purpose and objectives of MKRPL program, making a preliminary agreement for the planned follow-up action. The socialization was carried out starting at the district level to the relevant government officers and

Java and community self-help. Funding from DIPA BPTP East Java is intended to procure infrastructure facilities

(procurement of seeds, equipment, build village seedlings garden), extension and training. While the funds from the community self-help is being used for creating planting media in each household of MKRPL implementer.

MKRPL program funds originating from AIAT East Java is stimulant to stimulate the program to be implemented independently. A great community participation is the key to the success and sustainability of MKRPL program. This can be proved by the increasing number of households conducting MKRPL independently.

officials, at the village level to the village leader, the relevant village apparatus and the local PPL. Further socialization was done to prospective cooperators, farmer groups/women farmers related. Socialization to prospective cooperators is done in the Village Hall of Gunungteguh, Sangkapura District. The socialization results to the future implementers aims for realizing and understanding of MKRPL program purpose.

#### **K. Accompaniment**

Based on the result of analysis of MKRPL year-end report of Bawean Islands by AIAT East Java and MKRPL mapping assessment questionnaire, MKRPL program assistance is quite effective. These include creating and developing Village Seedlings Garden (Kebun Bibit Desa/KBD), training and providing plants samples, household assistance and monitoring evaluation as described below:

##### **a. Assistance to developing Village Seedlings Garden (KBD),**

Village Seedlings Garden is a garden where the production and distribution of seeds /seedlings belonging to the implementers of sustainable food homes, whose management is institutionalized by relevant RPL implementers. KBD Gunungteguh village is in 2 locations namely KBD Teguh Hamlet and KBD Gunungmenur Hamlet. This is to facilitate the distribution of seeds to KRPL implementers in these 2 locations. The commodities cultivated in KBD include mustard, eggplant, chilli, spinach, kale, lettuce, gambas, okra (lady's fingers or gumbo), broccoli, cabbage, tomatoes, yardlong beans, pare (bitter melon), sweet corn. Management of KBD is done in groups that are coordinated by the coordinator of each hamlet by applying the planting/watering schedule.

b. Training and providing plants samples

The purpose of training is to provide knowledge about technology of cultivation of crops, livestock and management of agricultural products and waste prior to the implementation of activities in the field. Training is also conducted for institutional strengthening. Training followed by practice and done gradually. The training starts from planting preparation, making of mixed planting media, planting in polybag/container and in the field, maintaining plants, harvesting vegetable crops, making bokashi with basic material of cow manure.

c. Assistance at the household level

After obtaining training and practice, mothers were given seeds of vegetable crops and asked to plant in polybag/container or on their yard. The seeds given and asked to plant first are spinach, kale and mustard. These vegetables are types of vegetables that are often needed for daily consumption, easy to grow and short-lived. In the next stage seedlings given are chilli, eggplant, tomato, celery, lettuce bokor and other plants. Assistance was also carried out to control pests and vegetable crops diseases.

d. Monitoring/evaluation

Monitoring and evaluation was used to determine the progress of activities implementation by the community and assess the suitability of activities that have been implemented. Monitoring was done periodically by observing plants growth that have been planted, asking difficulties and ease experienced by mothers in planting and maintaining vegetable crops, asking them of vegetables that want to be planted next. Monitoring was also carried out during training, group meetings and periodically conducted by accompanying PPL in Gunungteguh Village.

Assistance was carried out by BPTP East Java researchers / extension officers, Field Extension Officers (PPL) and village leaders and their apparatus according to their respective duties. The presence of this companion is expected to help the community, particularly the implementers of MKRPL program in solving problems faced in the field.

## L. Community participation

Community participation in MKRPL program consists of the participation of KWT implementers, community leaders, village officials and sub-district officials. Based on

MKRPL mapping assessment questionnaire on implementers participation/KWT, community leaders and village officials belongs to high category. While the participation of district/muspika apparatus belongs to medium category.

Implementers participation/KWT in the form of involvement in every MKRPL activity ranging from socialization, planning, extension, training, involvement in village seedling activities, household level implementation and activity evaluation. The involvement of farmer women groups was seen from attendance at each meeting or training on MKRPL program. Another involvement is to provide facilities and infrastructure to support MKRPL program and participate in carrying out every activity in the field.

The participation of community leaders and village officials in the form of motivating and giving examples of the implementation of the MKRPL program. While the participation of the sub-district apparatus towards MKRPL program in the form of policy support.

## M. Activities Implementation

The implementation of MKRPL program activities is divided into two aspects of activities, namely activities in Village Seedlings Garden and activities at the farmer's household level. Based on the results of MKRPL mapping assessment questionnaire analysis, the implementation of activities aspects in Village Seedlings Garden can be explained as follows:

- The village seedling garden is built on the cost of DIPA BPTP East Java on the land owned by one of MKRPL members.
- The seed source is mostly derived from Research and Development Agency and a small part of self-help (plant their own seedlings).
- Seeds distribution from KBD to members is still provided free of charge. The timeliness of distribution is done as needed when going to plant.
- KBD coordinators are done in groups by creating schedule of activities in KBD.

The Village Seedlings Garden is a garden where production and distribution of seeds belonging to implementers of sustainable food houses, whose management is established by relevant RPL implementers. The commodities cultivated in KBD include mustard, eggplant, chilli, spinach, kale, lettuce, gambas, okra (lady's fingers or gumbo), broccoli, cabbage, tomatoes, yardlong beans, pare (bitter melon), sweet corn. Management of KBD

is done in groups that are coordinated by the coordinator of each hamlet by applying the planting/watering schedule.

Implementation of activities at the farm household level can be explained as follows :

- a. The number of MKRPL households initially amounted to 40 people and to 85 people or an increase of 112.5%.
- b. At the planting stage there is a rotation planning of plants in the area. This is adapted to the needs of farmers and the conditions of the growing season.
- c. Utilization of the crop for self-consumption and sold.
- d. Seed source of the majority of farmer household come from KBD.
- e. Region independence in the implementation of MKRPL is in sufficient category.
- f. The plant, livestock/fish integration system has not been implemented because the focus is still on the use of the yard through vegetable planting.
- g. Conservation of local food resources (food diversification) has not been implemented.

Selection of vegetables grown at the household level based on the needs and desires of each member. Seed source is derived from village seedlings garden (KBD) and a small part comes from members self-help. Utilization of crops for self-consumption and partly sold to the market. In general, the region independence in the implementation of MKRPL program can be categorized as sufficient.

#### **N. Product Evaluation**

The purpose of product evaluation is to link results with objectives, context/circumstances, inputs and processes to measure and translate results. The product or evaluation impact provides information to determine whether it will continue, limit or end the learning program. This type of evaluation can be used to determine learning outcomes and project achievements as a result of learning.

#### **O. Increased knowledge, skills, attitude**

Based on the results of the analysis on MKRPL year-end report of Bawean Islands by BPTP East Java, in general the existence of MKRPL program was able to increase knowledge, skills and attitudes towards the utilization of the yard through vegetable planting. Implementers have felt the benefits of MKRPL program, among others, as follows:

- a. Adding to the spirit of community togetherness, especially mothers and families involved in managing KRPL
- b. Instill changes in the mindset of the community from being consumptive to being productive

- c. The community has additional insights on matters related to species and variety of plants that are being managed and growth.
- d. In addition, social awareness, share knowledge and experience among residents is getting stronger.

#### **P. Program impact**

The impacts felt by the implementers of MKRPL program in a region based on MKRPL year-end report of Bawean Islands are as follows:

- a. The yard is arranged and beautiful, the vegetables planted in polybags are arranged in the yard of each citizen, thus appear neat and beautiful.
- b. Consumpt fresh vegetables quickly and ready to be processed. Vegetables produced from cultivation in polybags can be available at any time, whenever vegetables are available in fresh condition and can be harvested at any time as needed.
- c. Utilization of vegetables for daily consumption was able to reduce spending costs. Where the need for vegetables depends on the amount needed by a family. The higher the number of family members the more vegetables needed, with the vegetables in the yard the need for vegetables will be met and does not require to buy.
- d. Vegetables that are planted are not all consumed, excess vegetable crops can be exchanged between residents or sold to vegetable vendors, so that the excess vegetable crops sold will provide additional income to the household even though the average value is still small.
- e. The benefits of art, namely for the beauty of the home and the amusement or pleasure rides.
- f. Social benefits, namely being able to help others by giving each other vegetables, mutual cooperation is getting stronger, establishing friendships and being able to discuss agricultural problems or exchange experience in farming, particularly experience in maintaining vegetable crops among members.
- g. Health benefits; which can increase the nutritional requirements of the family.

In addition, MKRPL program in Teguh Hamlet and Gunungmenur Hamlet in Gunungteguh Village has an impact on the replication of similar programs independently in two other hamlets, namely Buton and Gunungtin Hamlets.

#### **IV. CONCLUSION**

Based on the results of the evaluation on the context, input, process and product components, it can be concluded that MKRPL program in Bawean Islands, East Java is going

well and is successful in achieving the planned goals. This is proved by the significant impact both on the community that is increasing the knowledge, skills and attitudes of the community towards the optimization of the yard environment as well as having positive impact on the private open space environment and its surroundings to fulfill food needs and nutrition requirements of the family based on local resources, environmentally friendly, and sustainable in one area.

#### **REFERENCES**

- [1] Badan Litbang Pertanian. 2011. Pedoman Umum Model Kawasan Rumah Pangan Lestari. Jakarta: Badan Penelitian dan Pengembangan Pertanian.
- [2] BBP2TP. 2012. Implementasi M-KRPL 2011 & 2012 dan Pembimbingan Workshop. Workshop Evaluasi KRPL 2011 & 2012 dan Rencana 2013. Bandung, 10 – 12 Desember 2012.
- [3] BPTP Jawa Timur. Laporan Akhir Tahun MKRPL Kepulauan Bawean Kabupaten Gresik Jawa Timur. Malang: BPTP Jawa Timur.
- [4] Mardikanto, T. 2009. Sistem Penyuluhan Pertanian. Surakarta : UNS Press.
- [5] Novitasari, E. 2011. Studi Budidaya Tanaman Pangan di Pekarangan Sebagai Sumber Ketahanan Pangan Keluarga (studi Kasus di Desa Ampel Gading Kecamatan Tirtoyudo Kabupaten Malang).
- [6] Saptana, dkk. 2013. Prospek Model-Kawasan Rumah Pangan Lestari (M-KRPL) Dan Replikasi Pengembangan KRPL. Bogor: Forum Penelitian Agro Ekonomi, Volume 31 No. 1, Juli 2013 : 67 - 87
- [7] Valera JB, Martinez VA, Plopino, RF. 1987. An Introduction To Extension Delivery Systems. Manila : Island Publishing House.
- [8] van den Ban, AW dan Hawkins, HS. 1999. Penyuluhan Pertanian. Yogyakarta : Kanisius.
- [9] Yayasan Pengembangan Sinar Tani. 2001. Penyuluhan Pertanian. Jakarta : Yayasan Pengembangan Sinar Tani.