



## IBM: CRAFTSMAN COMMUNITIES OF VIRGIN COCONUT OIL (VCO) IN SIKO VILLAGE KAYOA SUB-REGENCY NORTH MALUKU PROVINCE

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**Abstract:** Science and Technology Program for the community through coaching and assisting transfer of coconut processing simply technology into quality and durable VCO. IBM Results Program shows that: 1) socialization of coconut processing into VCO oil has been carried out to the community of Siko Kayoa Village in August 2014, 2) Siko Village Community especially the partners in this program have understood and receive technology transfer of making VCO as well as giving a positive response to this program, 3) Response of partner group showed that 100% of the respondents stated VCO socialization and training techniques were very clear and easily understood by the respondents, 99% stated tools and materials was easy to get, 98% of respondents stated the procedure for making VCO was easy, cheap and simple. 100% of respondents are willing to develop VCO making techniques in Siko village. Targets of this program have been achieved 95% by producing outputs skills of the Siko community to process VCO oil and VCO products produced.

**Keywords:** *community groups, craftsman, VCO oil*

Abstrak: Program Iptek bagi masyarakat telah dilaksanakan melalui pembinaan dan pendampingan transfer teknologi pengolahan buah kelapa secara sederhana menjadi VCO yang berkualitas dan awet. Hasil Program IBM menunjukkan bahwa: 1) telah dilaksanakan sosialisasi pengolahan buah kelapa menjadi minyak VCO pada masyarakat Desa Siko Kayoa pada bulan agustus 2014, 2) Masyarakat Desa Siko Khususnya Mitra dalam program ini telah memahami dan menerima transfer teknologi pembuatan VCO serta memberikan respon positif pada program ini, 3) Respon kelompok mitra menunjukkan 100% responden menyatakan bahwa teknik sosialisasi dan pelatihan pembuatan VCO ini sangat jelas dan mudah dipahami oleh responden, 99% menyatakan alat dan bahan mudah didapatkan, 98% responden menyatakan prosedur pembuatan VCO mudah, murah dan sederhana dan 100% responden bersedia mengembangkan teknik pembuatan VCO di desa Siko. Target dan sasaran program ini telah tercapai 95% dengan menghasilkan luaran Keterampilan masyarakat siko (mitra) mengolah minyak VCO dan produk VCO yang dihasilkan.

**Kata Kunci:** *kelompok masyarakat, minyak VCO, pengrajin*

### Introduction

Coconut oil is one of the most dominant products from coconut-based processing. Coconut oil has become one of people's basic needs as an energy source, generally people use coconut oil as cooking oil in addition to other needs. Needs for coconut oil continues to increase, especially in its use as cooking oil in line with the increasing population as consumers. In Northern Maluku, coconut oil is traditionally made by coconut farming communities. So far, the development of coconut oil in North Maluku society in general is still on a small scale both in terms of quantity and diversification of food processing based on coconut oil. Coconut oil has high economic value and wide use, such as used as food ingredients, soap making, medicine and so on. Many ways that can be used for making coconut oil. However, each method will produce coconut oil that is different, in terms of yield, quality and easy of processing (Suhadijono, 1999).

North Maluku Province is one of the provinces that has the longest coastline, because geographically the province is in the form of islands. Coconut plants (*Cocos nucifera*) are very suitable to be developed in this region. because one of the requirements for growing these plants is in the coastal areas, an easy crop management system, in accordance with the cultural patterns of the surrounding community and the physical condition of the land that supports it (Halmahera dalam Angka, 2012).

Coconut is one of the main plantation commodities in North Maluku, because almost all regions in this province, which are 8 (eight) regency / cities, are potential coconut producing regions. Coconut commodity has long been recognized and has a big role to play in the lives of the people of North Maluku,

both in terms of economic and socio-cultural aspects. South Halmahera Regency is the largest coconut producing region in northern Maluku.

Results of observations in the field also obtained information that the selling price of coconuts per item ranged from Rp. 500-1000. This condition shows that the level of income of coconut farmers is still relatively low, if compared to the allocation of a long time for one harvest time, while the price of processed coconut oil per kilograms of coconut farmers reaches Rp. 12000 with the calculation of materials to get 1 kg of coconut oil it takes an average of 12-15 coconuts.

Siko Village, Kayoa Sub-regency is the area of South Halmahera Regency, has a potential coconut productivity that is quite potential because almost all community plantations are planted with coconut. Coconut harvest productivity is quite abundant, but in general, handling post-harvest productivity of coconut into coconut oil is not optimal, there are still many coconut farmers who sell their crops to copra collectors at relatively low prices. In the village of Siko there is an intensive group of coconut farmers who process the harvest of coconut fruit into traditional coconut oil with limited production at the local scale.

Assistance program through the transfer of virgin coconut oil processing technology (VCO) is very appropriate to be implemented, because low mastery of science and technology for processing virgin coconut oil. Application of fermentation science and technology is expected to improve the skills and mastery of technology as an effort to improve the welfare of life and income level of coconut farmers. Given the availability of abundant raw materials for coconut harvest in Siko Village, efforts should be made to improve the processing skills of virgin coconut oil and quality of products through the IBM program Community Group of Virgin Coconut Oil (VCO) craftsmen in Siko village, South Halmahera Regency, North Maluku Province.

IBM Program Community Groups of coconut oil craftsmen in the village of Siko collaboration with 2 groups of oil coconut farmers and the second partner group is the dasawisma chairman of coconut oil craftsmen. Each group consists of 3 members with partner education background, namely elementary school. The first partner community group is a productive coconut oil processing partner group in Siko Village, chaired by Mrs. Suryati Hafel. and the second partner community group is the Dasawisma group in Siko village which is chaired by the wife of the village head, Mrs. Siti H Saleh.

Science and Technology Program for the community through coaching and assisting the transfer of oil processing technology by simple fermentation into a quality and durable VCO. IBM program of the coconut oil craftsmen group in Siko village has the expected targets and outputs from the implementation of this activity. As for the targets and outcomes of this program are; Virgin Coconut Oil (VCO) processing skills and Virgin Coconut Oil (VCO) products.

Making VCO is a form of science and technology application that can be integrated in:

1. Education in this case higher education is expected to always be able to develop new techniques through research that can be applied in the community.
2. For Department of Agriculture, Industry and Trade can be used as input to be developed on a large scale.
3. For Local governments can provide input to continue the develop of community so they can increase regional income and foreign exchange through the implementation of science and technology.

## Materials and Method

The approach used in this program is a qualitative approach. Approach carried out on the grounds that in taking action on research subjects it is preferred (Arikunto, 2002). This program lasted for 8 months, from April to September 2014. The research location was in Siko Village, Kayoa Sub-regency.

### a. Preparation phase

Preparation stage includes region observation and justification Focus group discussion of community partner groups. Survey was conducted related the potential of coconut and traditional coconut oil products made by the community. Then select or determine the target village, dedication program techniques and recommendations for the application of VCO oil making technology in the target village.

## b. Training Phase

Conducted training includes: training on research implementation procedures, research work procedure training, VCO training and socialization and its benefits, VCO oil making training. Assistance in the implementation of technology transfer in the target villages includes: 1) Coaching of production techniques and business independence, 2) Monitoring and evaluation program.

## Result and Discussion

This part presents data on the implementation of community dedication activities consisting of: 1) Training phase of VCO processing techniques, 2) Mentoring phase, 3) Monitoring and Evaluation phase. Program socialization, VCO oil making training, small scale production assistance and packaging of VCO oil products have been carried out. Description of each phase of the activity is as follows:

### 1. Training phase for processing coconut fruit into VCO

At this phase, the partner group is given training on processing coconut fruit into VCO oil (document). This activity was carried out on 7-14 August 2014 in the city of Ternate and the village of Siko Kayoa.

### 2. Phase of assistance

This phase is carried out after the VCO pure coconut oil processing technique training activities. Assistance phase is carried out by facilitating partners to make VCO up to produce good products and trained in how to package small scale products. Assistance phase is carried out twice, namely during training and during monitoring and evaluation on 7 and 14 August 2014.

### 3. Phase monitoring and evaluation of program efficiency

This stage is carried out twice, namely during the training by giving questionnaires and interviews to partner groups, and carried out at the time of assistance by observing the development of partners in conducting VCO processing techniques. Counter response of partner group are shown in table 1.

Table 1. Counter response of partner group

| Description  | Suriyati Hafel             | Siti H. Saleh               |
|--|----------------------------|-----------------------------|
| 1. Teknologi baru  | Iya karena tanpa pemanasan | Iya karena tanpa pemanasan  |
| 2. Prosedur kerja sesuai dan mudah                                       | Iya                        | Iya                         |
| 3. Alat dan bahan mudah diperoleh  | Iya                        | Iya                         |
| 4. Hasil minyak VCO memuaskan  | Iya                        | Tidak karena masih berwarna |
| 5. Adanya rencana pengembangan teknik pengolahan minyak VCO di Desa Siko | Iya                        | Iya                         |
| Saran  | -                          | -                           |

Source: Primary data processed

Based on table 1, it can be seen that in general the technology transferred to partner groups can be well received and implemented. But for the results of VCO oil produced by the partner group still needs to be improved processing techniques. Especially the color of VCO is not as clear as the theory in the socialization. There were no obstacles in the training that was carried out because 2 partner groups were village coconut oil craftsmen in the village of Siko. Based on the process of assisting and testing for 3-4 days, valuable experience is gained that if the coconut which is processed into VCO oil is very old coconut then the product produced is yellow and has a rather pungent odor, Likewise, if the VCO processing technique is heated, the processed product is also yellow like the village coconut oil which is usually processed. The follow up plan for this activity are:

1. Hygienic and durable coconut oil processing equipment will be developed.
2. Product packaging and marketing training will be conducted.
3. Independent group of coconut oil craftsmen will be formed in the village of Siko Kayoa.



Figure 1. A. VCO products; B. Training process

## Conclusion

Based on the implementation of the science and technology program for community groups of Virgin Coconut Oil craftsmen (VCO) in the village of Siko Kayoa, it can be concluded that: Science and technology program for the community has been implemented in the form of VCO pure coconut oil processing for 2 groups of partners who are craftsmen of coconut oil in the village of Siko. In general, VCO oil processing techniques can be accepted by partner groups because the procedure is easy, although the results are not yet satisfactory. The program targets have been achieved through program outcomes namely the life skills of the Siko community in processing VCO pure coconut oil and VCO products resulting from training and program assistance.

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